

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
Phase 1 line to neutral volts.	4	Float	V	00	00
Phase 2 line to neutral volts.	4	Float	V	00	02
Phase 3 line to neutral volts.	4	Float	V	00	04
Phase 1 current.	4	Float	A	00	06
Phase 2 current.	4	Float	A	00	08
Phase 3 current.	4	Float	A	00	0A
Phase 1 active power.	4	Float	W	00	0C
Phase 2 active power.	4	Float	W	00	0E
Phase 3 active power.	4	Float	W	00	10
Phase 1 reactive power.	4	Float	var	00	12
Phase 2 reactive power.	4	Float	var	00	14
Phase 3 reactive power.	4	Float	var	00	16
Phase 1 apparent power.	4	Float	VA	00	18
Phase 2 apparent power.	4	Float	VA	00	1A
Phase 3 apparent power.	4	Float	VA	00	1C
Phase 1 power factor (1).	4	Float	None	00	1E
Phase 2 power factor (1).	4	Float	None	00	20
Phase 3 power factor (1).	4	Float	None	00	22
Phase 1 phase angle.	4	Float	Degrees	00	24
Phase 2 phase angle.	4	Float	Degrees	00	26
Phase 3 phase angle.	4	Float	Degrees	00	28
Line 1 to Line 2 volts.	4	Float	V	00	2A
Line 2 to Line 3 volts.	4	Float	V	00	2C
Line 3 to Line 1 volts.	4	Float	V	00	2E
Frequency of supply voltages.	4	Float	Hz	00	30
Total system active power.	4	Float	W	00	32
Total system reactive power.	4	Float	var	00	34
Total system apparent power.	4	Float	VA	00	36
Total system power factor (1).	4	Float	None	00	38
Total system phase angle.	4	Float	Degrees	00	3A
Sum of line currents.	4	Float	A	00	3C
Average line to neutral volts.	4	Float	V	00	3E
Average line to line volts.	4	Float	V	00	40
Average line current.	4	Float	A	00	42
Neutral current.	4	Float	A	00	44
Nature of L1 load (Resistive=1, inductive=2, capacitive =3)	4	Float	None	00	4E
Nature of L2 load (Resistive =1, inductive=2, capacitive =3)	4	Float	None	00	50
Nature of L3 load (Resistive =1, inductive=2, capacitive =3)	4	Float	None	00	52
Nature of the system load (Resistive =1, inductive =2, capacitive =3)	4	Float	None	00	54
Voltage phase sequence	4	Float	None	00	56

(normal=1、reverse=2、phase missing =3)					
Current phase sequence (normal=1、reverse=2、phase missing =3)	4	Float	None	00	58
Phase 1 displacement power factor	4	Float	None	00	5A
Phase 2 displacement power factor	4	Float	None	00	5C
Phase 3 displacement power factor	4	Float	None	00	5E
Total displacement power factor	4	Float	None	00	60
L1 voltage crest factor	4	Float	None	00	62
L2 voltage crest factor	4	Float	None	00	64
L3 voltage crest factor	4	Float	None	00	66
L1 current K factor	4	Float	None	00	6E
L2 current K factor	4	Float	None	00	70
L3 current K factor	4	Float	None	00	72
Negative-sequence unbalance of voltage	4	Float	%	00	74
Zero-sequence unbalance of voltage	4	Float	%	00	76
Negative-sequence unbalance of current	4	Float	%	00	78
Zero-sequence unbalance of current	4	Float	%	00	7A
Phase 1 voltage THD (2).	4	Float	%	00	7C
Phase 2 voltage THD (2).	4	Float	%	00	7E
Phase 3 voltage THD (2).	4	Float	%	00	80
Phase 1 current THD	4	Float	%	00	82
Phase 2 current THD	4	Float	%	00	84
Phase 3 current THD	4	Float	%	00	86
Average voltage THD (2).	4	Float	%	00	88
Average line current THD.	4	Float	%	00	8A
Total system active power demand (3).	4	Float	W	00	8C
Total system reactive power demand (3).	4	Float	var	00	8E
Total system apparent power demand.	4	Float	VA	00	90
Phase 1 current demand.	4	Float	A	00	92
Phase 2 current demand.	4	Float	A	00	94
Phase 3 current demand.	4	Float	A	00	96
Neutral current demand.	4	Float	A	00	98
Import active power demand	4	Float	W	00	9A
Export active power demand	4	Float	W	00	9C
Maximum total system active power demand (3).	4	Float	W	00	A2
Maximum total system reactive power demand (3).	4	Float	var	00	A4
Maximum total system apparent power demand.	4	Float	VA	00	A6
Maximum phase 1 current demand.	4	Float	A	00	A8
Maximum phase 2 current demand.	4	Float	A	00	AA
Maximum phase 3 current demand.	4	Float	A	00	AC
Maximum neutral current demand.	4	Float	A	00	AE
Maximum import active power demand	4	Float	W	00	B0
Maximum export active power demand	4	Float	W	00	B2
Voltage 2st~63st Harmonic L1 (2).	248	Float	%	00	B8
Voltage 2st~63st Harmonic L2 (2).	248	Float	%	01	34
Voltage 2st~63st Harmonic L3 (2).	248	Float	%	01	B0

Current 2st~63st Harmonic L1	248	Float	%	02	2C
Current 2st~63st Harmonic L2	248	Float	%	02	A8
Current 2st~63st Harmonic L3	248	Float	%	03	24
Maximum value of total active power	4	Float	W	04	3C
Maximum value of total reactive power	4	Float	var	04	3E
Maximum value of total apparent power	4	Float	VA	04	40
Maximum of the total power factor	4	Float	None	04	42
Maximum value of L1 active power	4	Float	W	04	44
Maximum value of L2 active power	4	Float	W	04	46
Maximum value of L3 active power	4	Float	W	04	48
Maximum value of L1 reactive power	4	Float	var	04	4A
Maximum value of L2 reactive power	4	Float	var	04	4C
Maximum value of L3 reactive power	4	Float	var	04	4E
Maximum value of L1 apparent power	4	Float	VA	04	50
Maximum value of L2 apparent power	4	Float	VA	04	52
Maximum value of L3 apparent power	4	Float	VA	04	54
Maximum of the L1 power factor	4	Float	None	04	56
Maximum of the L2 power factor	4	Float	None	04	58
Maximum of the L3 power factor	4	Float	None	04	5A
Maximum value of L1 current	4	Float	A	04	5C
Maximum value of L2 current	4	Float	A	04	5E
Maximum value of L3 current	4	Float	A	04	60
Maximum value of neutral current	4	Float	A	04	62
Maximum value of total current	4	Float	A	04	64
Maximum value of L1 voltage	4	Float	V	04	66
Maximum value of L2 voltage	4	Float	V	04	68
Maximum value of L3 voltage	4	Float	V	04	6A
Maximum value of L1-2 voltage	4	Float	V	04	6C
Maximum value of L2-3 voltage	4	Float	V	04	6E
Maximum value of L3-1 voltage	4	Float	V	04	70
Maximum value of L1 voltage total harmonic (2).	4	Float	%	04	72
Maximum value of L2 voltage total harmonic (2).	4	Float	%	04	74
Maximum value of L3 voltage total harmonic (2).	4	Float	%	04	76
Maximum value of L1 current total harmonic	4	Float	%	04	78
Maximum value of L2 current total harmonic	4	Float	%	04	7A
Maximum value of L3 current total harmonic	4	Float	%	04	7C
Minimum value of total active power	4	Float	W	04	7E
Minimum value of total reactive power	4	Float	var	04	80
Minimum value of total apparent power	4	Float	VA	04	82
Minimum of the total power factor	4	Float	None	04	84
Minimum value of L1 active power	4	Float	W	04	86
Minimum value of L2 active power	4	Float	W	04	88
Minimum value of L3 active power	4	Float	W	04	8A
Minimum value of L1 reactive power	4	Float	var	04	8C
Minimum value of L2 reactive power	4	Float	var	04	8E
Minimum value of L3 reactive power	4	Float	var	04	90

Minimum value of L1 apparent power	4	Float	VA	04	92
Minimum value of L2 apparent power	4	Float	VA	04	94
Minimum value of L3 apparent power	4	Float	VA	04	96
Minimum of the L1 power factor	4	Float	None	04	98
Minimum of the L2 power factor	4	Float	None	04	9A
Minimum of the L3 power factor	4	Float	None	04	9C
Minimum value of L1 current	4	Float	A	04	9E
Minimum value of L2 current	4	Float	A	04	A0
Minimum value of L3 current	4	Float	A	04	A2
Minimum value of neutral current	4	Float	A	04	A4
Minimum value of total current	4	Float	A	04	A6
Minimum value of L1 voltage	4	Float	V	04	A8
Minimum value of L2 voltage	4	Float	V	04	AA
Minimum value of L3 voltage	4	Float	V	04	AC
Minimum value of L1-2 voltage	4	Float	V	04	AE
Minimum value of L2-3 voltage	4	Float	V	04	B0
Minimum value of L3-1 voltage	4	Float	V	04	B2
Minimum value of L1 voltage total harmonic (2).	4	Float	%	04	B4
Minimum value of L2 voltage total harmonic (2).	4	Float	%	04	B6
Minimum value of L3 voltage total harmonic (2).	4	Float	%	04	B8
Minimum value of L1 current total harmonic	4	Float	%	04	BA
Minimum value of L2 current total harmonic	4	Float	%	04	BC
Minimum value of L3 current total harmonic	4	Float	%	04	BE
Total import active energy.	4	Float	kWh	05	00
Total export active energy.	4	Float	kWh	05	02
Total active Energy (Import + Export).	4	Float	kWh	05	04
Net active Energy (Import - Export).	4	Float	kWh	05	06
Total import reactive energy.	4	Float	kvarh	05	08
Total export reactive energy.	4	Float	kvarh	05	0A
Total reactive energy (Import + Export).	4	Float	kvarh	05	0C
Net reactive energy (Import - Export).	4	Float	kvarh	05	0E
Total apparent energy.	4	Float	kVAh	05	10
The Ah of the system current	4	Float	Ah	05	12
L1 import active Energy	4	Float	kWh	05	14
L2 import active Energy	4	Float	kWh	05	16
L3 import active Energy	4	Float	kWh	05	18
L1 export active Energy	4	Float	kWh	05	1A
L2 export active Energy	4	Float	kWh	05	1C
L3 export active Energy	4	Float	kWh	05	1E
L1 total active Energy	4	Float	kWh	05	20
L2 total active Energy	4	Float	kWh	05	22
L3 total active Energy	4	Float	kWh	05	24
L1 import reactive energy	4	Float	kvarh	05	26
L2 import reactive energy	4	Float	kvarh	05	28
L3 import reactive energy	4	Float	kvarh	05	2A
L1 export reactive energy	4	Float	kvarh	05	2C

L2 export reactive energy	4	Float	kvarh	05	2E
L3 export reactive energy	4	Float	kvarh	05	30
L1 total reactive energy	4	Float	kvarh	05	32
L2 total reactive energy	4	Float	kvarh	05	34
L3 total reactive energy	4	Float	kvarh	05	36
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
Reactive energy in the I quadrant	4	Float	kvarh	06	28
Reactive energy in the II quadrant	4	Float	kvarh	06	2A
Reactive energy in the III quadrant	4	Float	kvarh	06	2C
Reactive energy in the IV quadrant	4	Float	kvarh	06	2E
Monthly energy for the last 12 months					
Total active energy category					
Total Current month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	00
Total Last 1 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	0A
Total Last 2 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	14
Total Last3 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	1E
Total Last 4 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	28
Total Last5 month active Energy	20	Float	kWh	07	32

(Total、Rate1、Rate2、Rate3、Rate4)					
Total Last6 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	3C
Total Last7 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	46
Total Last8 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	50
Total Last9 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	5A
Total Las10 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	64
Total Last11 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	6E
Total Last12 month active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	78
Import active energy category					
Current month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	82
Last 1 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	8C
Last 2 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	96
Last 3 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	A0
Last 4 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	AA
Last 5 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	B4
Last 6 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	BE
Last 7 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	C8
Last 8 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	D2
Last 9 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	DC
Last 10 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	E6
Last 11 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	F0
Last 12 month import active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	07	FA
Export active energy category					
Current month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	04
Last 1 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	0E

Last 2 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	18
Last 3 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	22
Last 4 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	2C
Last 5 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	36
Last 6 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	40
Last 7 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	4A
Last 8 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	54
Last 9 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	5E
Last 10 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	68
Last 11 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	72
Last 12 month export active Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	08	7C
Total reactive energy category					
Total Current month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	86
Total Last 1 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	90
Total Last 2 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	9A
Total Last3 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	A4
Total Last 4 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	AE
Total Last5 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	B8
Total Last6 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	C2
Total Last7 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	CC
Total Last8 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	D6
Total Last9 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	E0
Total Las10 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	EA
Total Last11 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	F4

Total Last12 month reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	08	FE
Import reactive energy category					
Current month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	08
Last 1 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	12
Last 2 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	1C
Last 3 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	26
Last 4 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	30
Last 5 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	3A
Last 6 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	44
Last 7 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	4E
Last 8 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	58
Last 9 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	62
Last 10 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	6C
Last 11 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	76
Last 12 month import reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	80
Export reactive energy category					
Current month export reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	8A
Last 1 month export reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	94
Last 2 month export reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	9E
Last 3 month export reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	A8
Last 4 month export reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	B2
Last 5 month export reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	BC
Last 6 month export reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	C6
Last 7 month export reactive Energy (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	09	D0
Last 8 month export reactive Energy	20	Float	kvarh	09	DA

(Total, Rate1, Rate2, Rate3, Rate4)					
Last 9 month export reactive Energy (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kvarh	09	E4
Last 10 month export reactive Energy (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kvarh	09	EE
Last 11 month export reactive Energy (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kvarh	09	F8
Last 12 month export reactive Energy (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kvarh	0A	02
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
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	Float	kWh	0A	8E
The import active energy consumption of the last 1 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	98
The import active energy consumption of the last 2	20	Float	kWh	0A	A2

months (Total, Rate1, Rate2, Rate3, Rate4)					
The import active energy consumption of the last 3 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	AC
The import active energy consumption of the last 4 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	B6
The import active energy consumption of the last 5 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	C0
The import active energy consumption of the last 6 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	CA
The import active energy consumption of the last 7 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	D4
The import active energy consumption of the last 8 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	DE
The import active energy consumption of the last 9 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	E8
The import active energy consumption of the last 10 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	F2
The import active energy consumption of the last 11 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0A	FC
The import active energy consumption of the last 12 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	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	Float	kWh	0B	10
The export active energy consumption of the last 1 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	1A
The export active energy consumption of the last 2 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	24
The export active energy consumption of the last 3 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	2E
The export active energy consumption of the last 4 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	38
The export active energy consumption of the last 5 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	42
The export active energy consumption of the last 6 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	4C
The export active energy consumption of the last 7 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	56
The export active energy consumption of the last 8 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	60
The export active energy consumption of the last 9 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	6A
The export active energy consumption of the last 10 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	74
The export active energy consumption of the last 11 months (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0B	7E

months (Total、Rate1、Rate2、Rate3、Rate4)					
The export active energy consumption of the last 12 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0B	88
Total reactive 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 reactive energy consumption of the current months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	92
The total reactive energy consumption of the last 1 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	9C
The total reactive energy consumption of the last 2 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	A6
The total reactive energy consumption of the last 3 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	B0
The total reactive energy consumption of the last 4 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	BA
The total reactive energy consumption of the last 5 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	C4
The total reactive energy consumption of the last 6 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	CE
The total reactive energy consumption of the last 7 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	D8
The total reactive energy consumption of the last 8 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	E2
The total reactive energy consumption of the last 9 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	EC
The total reactive energy consumption of the last 10 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0B	F6
The total reactive energy consumption of the last 11 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	00
The total reactive energy consumption of the last 12 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	0A
Import reactive 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 reactive energy consumption of the current months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	14
The import reactive energy consumption of the last 1 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	1E
The import reactive energy consumption of the last 2 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	28
The import reactive energy consumption of the last 3 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	32
The import reactive energy consumption of the last 4 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	3C
The import reactive energy consumption of the last 5 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	46

The import reactive energy consumption of the last 6 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	50
The import reactive energy consumption of the last 7 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	5A
The import reactive energy consumption of the last 8 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	64
The import reactive energy consumption of the last 9 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	6E
The import reactive energy consumption of the last 10 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	78
The import reactive energy consumption of the last 11 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	82
The import reactive energy consumption of the last 12 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	8C
Export reactive 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 reactive energy consumption of the current months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	96
The export reactive energy consumption of the last 1 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	A0
The export reactive energy consumption of the last 2 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	AA
The export reactive energy consumption of the last 3 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	B4
The export reactive energy consumption of the last 4 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	BE
The export reactive energy consumption of the last 5 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	C8
The export reactive energy consumption of the last 6 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	D2
The export reactive energy consumption of the last 7 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	DC
The export reactive energy consumption of the last 8 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	E6
The export reactive energy consumption of the last 9 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	F0
The export reactive energy consumption of the last 10 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0C	FA
The export reactive energy consumption of the last 11 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0D	04
The export reactive energy consumption of the last 12 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kvarh	0D	0E
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 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	A4
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	20	Float	kWh	0D	FE

(Total, Rate1, Rate2, Rate3, Rate4)					
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 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	3A
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
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 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	58
The import active energy consumption of the last 1 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	62
The import active energy consumption of the last 2 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	6C
The import active energy consumption of the last 3 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	76
The import active energy consumption of the last 4 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	80
The import active energy consumption of the last 5 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	8A
The import active energy consumption of the last 6 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	94
The import active energy consumption of the last 7 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	9E
The import active energy consumption of the last 8 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	A8
The import active energy consumption of the last 9	20	Float	kWh	0E	B2

days (Total, Rate1, Rate2, Rate3, Rate4)					
The import active energy consumption of the last 10 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	BC
The import active energy consumption of the last 11 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	C6
The import active energy consumption of the last 12 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	D0
The import active energy consumption of the last 13 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	DA
The import active energy consumption of the last 14 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	E4
The import active energy consumption of the last 15 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	EE
The import active energy consumption of the last 16 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0E	F8
The import active energy consumption of the last 17 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	02
The import active energy consumption of the last 18 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	0C
The import active energy consumption of the last 19 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	16
The import active energy consumption of the last 20 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	20
The import active energy consumption of the last 21 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	2A
The import active energy consumption of the last 22 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	34
The import active energy consumption of the last 23 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	3E
The import active energy consumption of the last 24 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	48

The import active energy consumption of the last 25 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	52
The import active energy consumption of the last 26 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	5C
The import active energy consumption of the last 27 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	66
The import active energy consumption of the last 28 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	70
The import active energy consumption of the last 29 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	7A
The import active energy consumption of the last 30 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	84
The import active energy consumption of the last 31 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	8E
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 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	98
The export active energy consumption of the last 1 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	A2
The export active energy consumption of the last 2 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	AC
The export active energy consumption of the last 3 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	B6
The export active energy consumption of the last 4 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	C0
The export active energy consumption of the last 5 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	CA
The export active energy consumption of the last 6 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	D4
The export active energy consumption of the last 7 days (Total, Rate1, Rate2, Rate3, Rate4)	20	Float	kWh	0F	DE

The export active energy consumption of the last 8 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0F	E8
The export active energy consumption of the last 9 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0F	F2
The export active energy consumption of the last 10 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0F	FC
The export active energy consumption of the last 11 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	06
The export active energy consumption of the last 12 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	10
The export active energy consumption of the last 13 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	1A
The export active energy consumption of the last 14 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	24
The export active energy consumption of the last 15 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	2E
The export active energy consumption of the last 16 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	38
The export active energy consumption of the last 17 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	42
The export active energy consumption of the last 18 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	4C
The export active energy consumption of the last 19 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	56
The export active energy consumption of the last 20 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	60
The export active energy consumption of the last 21 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	6A
The export active energy consumption of the last 22 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	74
The export active energy consumption of the last 23 days	20	Float	kWh	10	7E

(Total、Rate1、Rate2、Rate3、Rate4)					
The export active energy consumption of the last 24 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	88
The export active energy consumption of the last 25 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	92
The export active energy consumption of the last 26 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	9C
The export active energy consumption of the last 27 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	A6
The export active energy consumption of the last 28 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	B0
The export active energy consumption of the last 29 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	BA
The export active energy consumption of the last 30 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	C4
The export active energy consumption of the last 31 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	10	CE
Maximum demand with occurrence time information					
Maximum total system active power demand (3).	4	Float	W	1A	0C
The occurrence time of the maximum total system active power demand	6	BCD	YY.MM DD HH:mm: SS	1A	0E
Maximum total system reactive power demand (3).	4	Float	var	1A	11
The occurrence time of the maximum total system reactive power demand	6	BCD	YY.MM DD HH:mm: SS	1A	13
Maximum total system apparent power demand.	4	Float	VA	1A	16
The occurrence time of the maximum total system apparent power demand	6	BCD	YY.MM DD HH:mm: SS	1A	18
Maximum phase 1 current demand.	4	Float	A	1A	48
The occurrence time of the maximum phase 1 current demand	6	BCD	YY.MM DD HH:mm: SS	1A	4A
Maximum phase 2 current demand.	4	Float	A	1A	4D

The occurrence time of the maximum phase 2 current demand	6	BCD	YY.MM DD HH:mm: SS	1A	4F
Maximum phase 3 current demand.	4	Float	A	1A	52
The occurrence time of the maximum phase 3 current demand	6	BCD	YY.MM DD HH:mm: SS	1A	54
Maximum neutral current demand.	4	Float	A	1A	57
The occurrence time of the maximum neutral current demand	6	BCD	YY.MM DD HH:mm: SS	1A	59
Maximum import active power demand	4	Float	W	1A	7A
The occurrence time of the maximum import active power demand	6	BCD	YY.MM DD HH:mm: SS	1A	7C
Maximum export active power demand	4	Float	W	1A	7F
The occurrence time of the maximum export active power demand	6	BCD	YY.MM DD HH:mm: SS	1A	81
An extreme value with occurrence time information					
Maximum value total active power	4	Float	W	1B	10
The occurrence time of the total active power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	12
Maximum value of total reactive power	4	Float	var	1B	15
The occurrence time of the total reactive power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	17
Maximum value of total apparent power	4	Float	VA	1B	1A
The occurrence time of the total apparent power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	1C
Maximum of the total power factor	4	Float	None	1B	1F
The occurrence time of the total power factor maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	21
Maximum value of L1 active power	4	Float	W	1B	24
The occurrence time of the L1 active power maximum	6	BCD	YY.MM	1B	26

value			DD HH:mm: SS		
Maximum value of L2 active power	4	Float	W	1B	29
The occurrence time of the L2 active power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	2B
Maximum value of L3 active power	4	Float	W	1B	2E
The occurrence time of the L3 active power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	30
Maximum value of L1 reactive power	4	Float	var	1B	33
The occurrence time of the L1 reactive power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	35
Maximum value of L2 reactive power	4	Float	var	1B	38
The occurrence time of the L2 reactive power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	3A
Maximum value of L3 reactive power	4	Float	var	1B	3D
The occurrence time of the L3 reactive power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	3F
Maximum value of L1 apparent power	4	Float	VA	1B	42
The occurrence time of the L1 apparent power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	44
Maximum value of L2 apparent power	4	Float	VA	1B	47
The occurrence time of the L2 apparent power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	49
Maximum value of L3 apparent power	4	Float	VA	1B	4C
The occurrence time of the L3 apparent power maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	4E
Maximum value of the L1 power factor	4	Float	None	1B	51
The occurrence time of the L1 power factor maximum value	6	BCD	YY.MM DD HH:mm:	1B	53

			SS		
Maximum value of the L2 power factor	4	Float	None	1B	56
The occurrence time of the L2 power factor maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	58
Maximum value of the L3 power factor	4	Float	None	1B	5B
The occurrence time of the L3 power factor maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	5D
Maximum value of L1 current	4	Float	A	1B	60
The occurrence time of the L1 current maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	62
Maximum value of L2 current	4	Float	A	1B	65
The occurrence time of the L2 current maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	67
Maximum value of L3 current	4	Float	A	1B	6A
The occurrence time of the L3 current maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	6C
Maximum value of neutral current	4	Float	A	1B	6F
The occurrence time of the neutral current maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	71
Maximum value of total current	4	Float	A	1B	74
The occurrence time of the total current maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	76
Maximum value of L1 voltage	4	Float	V	1B	79
The occurrence time of the L1 voltage maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	7B
Maximum value of L2 voltage	4	Float	V	1B	7E
The occurrence time of the L2 voltage maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	80
Maximum value of L3 voltage	4	Float	V	1B	83

The occurrence time of the L3 voltage maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	85
Maximum value of L1-2 voltage	4	Float	V	1B	88
The occurrence time of the L1-2 voltage maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	8A
Maximum value of L2-3 voltage	4	Float	V	1B	8D
The occurrence time of the L2-3 voltage maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	8F
Maximum value of L3-1 voltage	4	Float	V	1B	92
The occurrence time of the L3-1 voltage maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	94
Maximum value of L1 voltage total harmonic (2).	4	Float	%	1B	97
The occurrence time of the L1 voltage total harmonic maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	99
Maximum value of L2 voltage total harmonic (2).	4	Float	%	1B	9C
The occurrence time of the L2 voltage total harmonic maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	9E
Maximum value of L3 voltage total harmonic (2).	4	Float	%	1B	A1
The occurrence time of the L3 voltage total harmonic maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	A3
Maximum value of L1 current total harmonic.	4	Float	%	1B	A6
The occurrence time of the L1 current total harmonic maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	A8
Maximum value of L2 current total harmonic.	4	Float	%	1B	AB
The occurrence time of the L2 current total harmonic maximum value	6	BCD	YY.MM DD HH:mm: SS	1B	AD
Maximum value of L3 current total harmonic.	4	Float	%	1B	B0
The occurrence time of the L3 current total harmonic maximum value	6	BCD	YY.MM DD	1B	B2

			HH:mm: SS		
Minimum value total active power	4	Float	W	1B	B5
The occurrence time of the total active power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	B7
Minimum value of total reactive power	4	Float	var	1B	BA
The occurrence time of the total reactive power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	BC
Minimum value of total apparent power	4	Float	VA	1B	BF
The occurrence time of the total apparent power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	C1
Minimum of the total power factor	4	Float	None	1B	C4
The occurrence time of the total power factor Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	C6
Minimum value of L1 active power	4	Float	W	1B	C9
The occurrence time of the L1 active power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	CB
Minimum value of L2 active power	4	Float	W	1B	CE
The occurrence time of the L2 active power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	D0
Minimum value of L3 active power	4	Float	W	1B	D3
The occurrence time of the L3 active power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	D5
Minimum value of L1 reactive power	4	Float	var	1B	D8
The occurrence time of the L1 reactive power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	DA
Minimum value of L2 reactive power	4	Float	var	1B	DD
The occurrence time of the L2 reactive power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	DF

Minimum value of L3 reactive power	4	Float	var	1B	E2
The occurrence time of the L3 reactive power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	E4
Minimum value of L1 apparent power	4	Float	VA	1B	E7
The occurrence time of the L1 apparent power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	E9
Minimum value of L2 apparent power	4	Float	VA	1B	EC
The occurrence time of the L2 apparent power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	EE
Minimum value of L3 apparent power	4	Float	VA	1B	F1
The occurrence time of the L3 apparent power Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	F3
Minimum value of the L1 power factor	4	Float	None	1B	F6
The occurrence time of the L1 power factor Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	F8
Minimum value of the L2 power factor	4	Float	None	1B	FB
The occurrence time of the L2 power factor Minimum value	6	BCD	YY.MM DD HH:mm: SS	1B	FD
Minimum value of the L3 power factor	4	Float	None	1C	00
The occurrence time of the L3 power factor Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	02
Minimum value of L1 current	4	Float	A	1C	05
The occurrence time of the L1 current Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	07
Minimum value of L2 current	4	Float	A	1C	0A
The occurrence time of the L2 current Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	0C
Minimum value of L3 current	4	Float	A	1C	0F
The occurrence time of the L3 current Minimum value	6	BCD	YY.MM	1C	11

			DD HH:mm: SS		
Minimum value of neutral current	4	Float	A	1C	14
The occurrence time of the neutral current Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	16
Minimum value of total current	4	Float	A	1C	19
The occurrence time of the total current Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	1B
Minimum value of L1 voltage	4	Float	V	1C	1E
The occurrence time of the L1 voltage Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	20
Minimum value of L2 voltage	4	Float	V	1C	23
The occurrence time of the L2 voltage Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	25
Minimum value of L3 voltage	4	Float	V	1C	28
The occurrence time of the L3 voltage Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	2A
Minimum value of L1-2 voltage	4	Float	V	1C	2D
The occurrence time of the L1-2 voltage Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	2F
Minimum value of L2-3 voltage	4	Float	V	1C	32
The occurrence time of the L2-3 voltage Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	34
Minimum value of L3-1 voltage	4	Float	V	1C	37
The occurrence time of the L3-1 voltage Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	39
Minimum value of L1 voltage total harmonic (2).	4	Float	%	1C	3C
The occurrence time of the L1 voltage total harmonic Minimum value	6	BCD	YY.MM DD HH:mm:	1C	3E

			SS		
Minimum value of L2 voltage total harmonic (2).	4	Float	%	1C	41
The occurrence time of the L2 voltage total harmonic Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	43
Minimum value of L3 voltage total harmonic (2).	4	Float	%	1C	46
The occurrence time of the L3 voltage total harmonic Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	48
Minimum value of L1 current total harmonic.	4	Float	%	1C	4B
The occurrence time of the L1 current total harmonic Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	4D
Minimum value of L2 current total harmonic.	4	Float	%	1C	50
The occurrence time of the L2 current total harmonic Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	52
Minimum value of L3 current total harmonic.	4	Float	%	1C	55
The occurrence time of the L3 current total harmonic Minimum value	6	BCD	YY.MM DD HH:mm: SS	1C	57

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. In 3P3W mode, L1 represents the line voltage THD of L1-2, L2 represents the line voltage harmonic content of L2-3, and L3 represents the Line voltage THD of L3-1. In 3P4W, 1P2W, 1P3W and other modes, L1, L2 and L3 respectively represent the corresponding phase voltage harmonic content
3. The power sum demand calculation is for import – export.

Measuring class parameter [Integer format data]

Holding Register Parameter [Read : Function code : 03H]				Register Address [Hex]		Mode
Description	Length (bytes)	Data Format	Units	High Byte	Low Byte	
Total import active energy.	8	INT64	Wh	1D	00	R
Total export active energy.	8	INT64	Wh	1D	04	R
Total active Energy (Import + Export).	8	INT64	Wh	1D	08	R
Net active Energy (Import - Export).	8	INT64	Wh	1D	0C	R
Total import reactive energy.	8	INT64	varh	1D	10	R
Total export reactive energy.	8	INT64	varh	1D	14	R
Total reactive energy (Import + Export).	8	INT64	varh	1D	18	R
Net reactive energy (Import - Export).	8	INT64	varh	1D	1C	R
Total apparent energy.	8	INT64	VAh	1D	20	R
L1 import active Energy	8	INT64	Wh	1D	24	R
L2 import active Energy	8	INT64	Wh	1D	28	R
L3 import active Energy	8	INT64	Wh	1D	2C	R
L1 export active Energy	8	INT64	Wh	1D	30	R
L2 export active Energy	8	INT64	Wh	1D	34	R
L3 export active Energy	8	INT64	Wh	1D	38	R
L1 total active Energy	8	INT64	Wh	1D	3C	R
L2 total active Energy	8	INT64	Wh	1D	40	R
L3 total active Energy	8	INT64	Wh	1D	44	R
L1 import reactive energy	8	INT64	varh	1D	48	R
L2 import reactive energy	8	INT64	varh	1D	4C	R
L3 import reactive energy	8	INT64	varh	1D	50	R
L1 export reactive energy	8	INT64	varh	1D	54	R
L2 export reactive energy	8	INT64	varh	1D	58	R
L3 export reactive energy	8	INT64	varh	1D	5C	R
L1 total reactive energy	8	INT64	varh	1D	60	R
L2 total reactive energy	8	INT64	varh	1D	64	R
L3 total reactive energy	8	INT64	varh	1D	68	R
Total active energy Rate 1	8	INT64	Wh	1D	6C	R
Total active energy Rate 2	8	INT64	Wh	1D	70	R
Total active energy Rate 3	8	INT64	Wh	1D	74	R
Total active energy Rate 4	8	INT64	Wh	1D	78	R
Import active energy Rate 1	8	INT64	Wh	1D	7C	R
Import active energy Rate 2	8	INT64	Wh	1D	80	R
Import active energy Rate 3	8	INT64	Wh	1D	84	R
Import active energy Rate 4	8	INT64	Wh	1D	88	R
Export active energy Rate 1	8	INT64	Wh	1D	8C	R
Export active energy Rate 2	8	INT64	Wh	1D	90	R
Export active energy Rate 3	8	INT64	Wh	1D	94	R
Export active energy Rate 4	8	INT64	Wh	1D	98	R
Total reactive energy Rate 1	8	INT64	varh	1D	9C	R

Total reactive energy Rate 2	8	INT64	varh	1D	A0	R
Total reactive energy Rate 3	8	INT64	varh	1D	A4	R
Total reactive energy Rate 4	8	INT64	varh	1D	A8	R
Import reactive energy Rate 1	8	INT64	varh	1D	AC	R
Import reactive energy Rate 2	8	INT64	varh	1D	B0	R
Import reactive energy Rate 3	8	INT64	varh	1D	B4	R
Import reactive energy Rate 4	8	INT64	varh	1D	B8	R
Export reactive energy Rate 1	8	INT64	varh	1D	BC	R
Export reactive energy Rate 2	8	INT64	varh	1D	C0	R
Export reactive energy Rate 3	8	INT64	varh	1D	C4	R
Export reactive energy Rate 4	8	INT64	varh	1D	C8	R
Reactive energy in the I quadrant	8	INT64	varh	1F	4C	R
Reactive energy in the II quadrant	8	INT64	varh	1F	50	R
Reactive energy in the III quadrant	8	INT64	varh	1F	54	R
Reactive energy in the IV quadrant	8	INT64	varh	1F	58	R

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
System Type	Write system type: 1 = 1P2W; 2 = 3P3W 2CT; 3 = 3P4W,(default); 4 = 1P3W; 5 = 3P3W 3CT; (KPPA is asked)	2	UINT	50	01	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
Demand calculation method	Default 0, 0 = sliding block 1 = fixed block	2	UINT	50	04	R/W
Modbus address	Write the modbus address Range: 1 to 247 for MODBUS Protocol, default 1.	2	UINT	50	05	R/W
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. 5 = 38400 baud.	2	UINT	50	06	R/W
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/W
Password	Read: to get the password of the meter Write: to program the new password of the meter Default : 0000	2	UINT	50	08	R/W

	(KPPA is asked)					
Pulse 1 Energy Type	Write MODBUS Protocol input parameter for pulse output 1: 1: import active energy 2: total active energy 4: export active energy, default 5: import reactive energy 6: total reactive energy 8: export reactive energy	2	UINT	50	09	R/W
Pulse 1 Rate	Write pulse rate index: n = 0 to 6 0 : 0.001 kwh/imp 1 : 0.01kwh/imp 2 : 0.1kwh/imp 3 : 1kwh/imp 4 : 10kwh/imp 5 : 100kwh/imp 6 : 1000kwh/imp	2	UINT	50	0A	R/W
Pulse 1 Width	Write pulse on period in milliseconds: 60, 100 or 200, default 100.	2	UINT	50	0B	R/W
Current Direction correction (when the external CT is connected reversely)	0 = L1 Frd, L2 Frd, L3 Frd 1 = L1 Rev, L2 Frd, L3 Frd 2 = L1 Frd, L2 Rev, L3 Frd 3 = L1 Rev, L2 Rev, L3 Frd 4 = L1 Frd, L2 Frd, L3 Rev 5 = L1 Rev, L2 Frd, L3 Rev 6 = L1 Frd, L2 Rev, L3 Rev 7 = L1 Rev, L2 Rev, L3 Rev Default 0 (KPPA is asked)	2	UINT	50	0F	R/W
PT1	PT1 Range 30 - 600000V, Default 230 (KPPA is asked)	4	ULONG	50	12	R/W
PT2	PT2 Range 30- 600V, Default 230 (KPPA is asked)	2	UINT	50	14	R/W
CT1	CT1 Range 1-9999A, Default 5, (KPPA is asked)	2	UINT	50	15	R/W
CT2	CT2 Range: 1A or 5A , Default 5A (KPPA is asked)	2	UINT	50	16	R/W
Automatic Scroll Display Time	Automatic scroll display time, unit : second Range 0~255, 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 always on, 255 means backlit always off.	2	UINT	50	19	R/W
System time	Data definition:	8	BCD	50	1A	R/W

	20-Year-Month-Date-Week-Hour-Minute-Second					
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	30	BCD	50	1E	R/W
Running time	Running time. Data definition: Day-hour-minute, day=2byte; hour=1byte; minute=1byte Explane: 04 23 21 57 mean : Running time=423 day + 21 hour + 57 min Write 0 to reset the running time. No response if write other value. Note: The meter starts timing when it's powered on	4	BCD	50	2D	R/W
Running time with load	Running time with load. Data definition: Day-hour-minute, day=2byte; hour=1byte; minute=1byte Explane: 04 23 21 57 mean : Running time=423 day + 21 hour + 57 min Write 0 to reset the running time with load. No response if write other value. Note: The meter starts timing when power greater than 0 detected	4	BCD	50	2F	R/W
Running time (Data in units of minutes)	Running time. Unit : minute. Write 0 to reset the running time with load. No response if write other value. Note: The meter starts timing when it's powered on	4	ULONG	50	3C	R/W
Running time with load (Data in units of minutes)	Running time with load. Unit : minute. Write 0 to reset the running time with load. No response if write other value. Note: The meter starts timing when power greater than 0 detected	4	ULONG	50	3E	R/W
DO1 mode	DO-1 output mode 1 = level mode; 2 = pulse mode	2	UINT	51	00	R/W
DO2 mode	DO-2 output mode 1 = level mode; 2 = pulse mode	2	UINT	51	01	R/W
DO1 pulse duration	DO-1 pulse duration, unit is ms. Range:50~3000, default:1000.	2	UINT	51	10	R/W
DO2 pulse	DO-2 pulse duration, unit is ms.	2	UINT	51	11	R/W

duration	Range:50~3000, default:1000.					
DI-1 filter time	DI filter time (0ms: 0~255) , Default 100ms	2	UINT	51	20	R/W
DI-1 count	DI-1 count Write 0 to reset the count. No response if write other value.	4	ULONG	51	40	R/W
DI-2 count	DI-2 count Write 0 to reset the count. No response if write other value.	4	ULONG	51	42	R/W
DI-3 count	DI-3 count Write 0 to reset the count. No response if write other value.	4	ULONG	51	44	R/W
DI-4 count	DI-4 count Write 0 to reset the count. No response if write other value.	4	ULONG	51	46	R/W
AL-1 Alarm Parameter (1)	AL-1 Alarm parameter Range: 0~36, and 255; Default: 255 = null	2	UINT	51	80	R/W
AL-1 Action delay time	AL-1 Action delay time, unit: ms Range:0~9999; default: 200ms	2	UINT	51	81	R/W
AL-2 Alarm Parameter (1)	AL-2 Alarm parameter Range: 0~36, and 255; Default: 255 = null	2	UINT	51	8A	R/W
AL-2 Action delay time	AL-2 Action delay time, unit: ms Range:0~9999; default: 200ms	2	UINT	51	8B	R/W
AL-1 Status	AL-1 Status 0 = No alarm 1 = HC alarm (High threshold alarm) 2 = LC alarm (Low threshold alarm) 3 = Both HC and LC alarms exist	2	UINT	52	20	R
AL-2 Status	AL-2 Status 0 = No alarm 1 = HC alarm (High threshold alarm) 2 = LC alarm (Low threshold alarm) 3 = Both HC and LC alarms exist	2	UINT	52	21	R
AL-1 alarm function	Set the alarm function of AL-1 to turn on or off. 0 = Turn on (default), 1 = Turn of.	2	UINT	52	30	R/W
AL-2 alarm function	Set the alarm function of AL-2 to turn on or off. 0 = Turn on (default), 1 = Turn of.	2	UINT	52	31	R/W
Reset historical data	0 = reset max. demand 1 = reset active energy 2 = reset reactive energy 3 = reset all energy 4 = reset max. and min. data 5 = reset SOE info	2	UINT	56	00	W

	6 = reset DI counts 7 = reset history log of energy (KPPA is asked)					
Meter code	The code of the meter PAC5000 = 00 01 PAC5100 = 00 02 PAC5010 = 00 81 PAC5110 = 00 82	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	UINT	56	07	R
Date display format	Date display format. Range : 1 - 3. 1 mean the CN format : YYYY.MM.DD 2 mean the EN format : DD.MM.YYYY 3 mean the US format : MM.DD.YYYY	2	UINT	56	0A	R/W
The automatic exit time of the Extends display	The automatic exit time of the Extends display, unit : second. Range : 0~255, default 60. Note: 0 means will not automatically quit, only manually operated exit.	2	UINT	56	0B	R/W
Rated voltage of the system	Rated voltage of the system, default:230V. Represents the voltage that is connected to the voltage measuring interface. If a voltage transformer is used, it represents the voltage on the secondary side of the voltage transformer.	4	ULONG	56	0C	R/W
Rated current of the system	Rated current of the system, default:5A. Represents the current that is connected to the current measuring interface. If a current transformer is used, it represents the current on the secondary side of the current transformer.	4	ULONG	56	0E	R/W
AL-1 HC Value (2)	High threshold alarm value of AL-1. When the alarm object value of AL-1 is greater than this value, the high-threshold alarm(HC) will be triggered.	4	FLOAT	61	00	R/W

AL-1 HO value (2)	High threshold alarm release value of AL-1. After triggering the high-threshold alarm(HC), the high-threshold alarm will be release only if the alarm object value of AL-1 is less than this value.	4	FLOAT	61	02	R/W
AL-1 LO value (2)	Low threshold alarm release value of AL-1. After triggering the low-threshold alarm(LC), the low-threshold alarm will be release only if the alarm object value of AL-1 is greater than this value.	4	FLOAT	61	04	R/W
AL-1 LC value (2)	Low threshold alarm value of AL-1. When the alarm object value of AL-1 is less than this value, the low-threshold alarm(LC) will be triggered.	4	FLOAT	61	06	R/W
AL-2 HC Value (2)	High threshold alarm value of AL-2. When the alarm object value of AL-2 is greater than this value, the high-threshold alarm(HC) will be triggered.	4	FLOAT	61	08	R/W
AL-2 HO value (2)	High threshold alarm release value of AL-2. After triggering the high-threshold alarm(HC), the high-threshold alarm will be release only if the alarm object value of AL-2 is less than this value.	4	FLOAT	61	0A	R/W
AL-2 LO value (2)	Low threshold alarm release value of AL-2. After triggering the low-threshold alarm(LC), the low-threshold alarm will be release only if the alarm object value of AL-2 is greater than this value.	4	FLOAT	61	0C	R/W
AL-2 LC value (2)	Low threshold alarm value of AL-2. When the alarm object value of AL-2 is less than this value, the low-threshold alarm(LC) will be triggered.	4	FLOAT	61	0E	R/W
SOE-01 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	00	R/W
SOE-02 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD.	12	Custom	62	06	R/W

	alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.					
SOE-03 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	0C	R/W
SOE-04 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	12	R/W
SOE-05 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	18	R/W
SOE-06 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	1E	R/W
SOE-07 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte,	12	Custom	62	24	R/W

	BCD.					
SOE-08 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	2A	R/W
SOE-09 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	30	R/W
SOE-10 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	36	R/W
SOE-11 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	3C	R/W
SOE-12 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	42	R/W
SOE-13 (3)	SOE information; the format is:	12	Custom	62	48	R/W

	type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.					
SOE-14 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	4E	R/W
SOE-15 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	54	R/W
SOE-16 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	5A	R/W
SOE-17 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	60	R/W
SOE-18 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second	12	Custom	62	66	R/W

	Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.					
SOE-19 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	6C	R/W
SOE-20 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	72	R/W
SOE-21 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	78	R/W
SOE-22 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	7E	R/W
SOE-23 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD.	12	Custom	62	84	R/W

	event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.					
SOE-24 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	8A	R/W
SOE-25 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	90	R/W
SOE-26 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	96	R/W
SOE-27 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	9C	R/W
SOE-28 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float.	12	Custom	62	A2	R/W

	year-month-date -hour-min-second : 6 byte, BCD.					
SOE-29 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	A8	R/W
SOE-30 (3)	SOE information; the format is: type-event cause-alarm value-year-month-date -hour-min-second Note: Type : 1 byte, BCD. event cause : 1 byte, BCD. alarm value : 4 byte, Float. year-month-date -hour-min-second : 6 byte, BCD.	12	Custom	62	AE	R/W

Note:

(1) Table-1 Alarm Parameter

Number	Alarm parameter	Number	Alarm parameter	Number	Alarm parameter
0	Phase 1 line to neutral volts.	13	Phase 1 active power.	26	Phase 2 power factor.
1	Phase 2 line to neutral volts.	14	Phase 2 active power.	27	Phase 3 power factor .
2	Phase 3 line to neutral volts.	15	Phase 3 active power.	28	Total system power factor.
3	Average line to neutral volts.	16	Total system active power.	29	Frequency of supply voltages.
4	Line 1 to Line 2 volts.	17	Phase 1 reactive power.	30	Line to neutral voltage of per phase
5	Line 2 to Line 3 volts.	18	Phase 2 reactive power.	31	Line to line voltage of per phase
6	Line 3 to Line 1 volts.	19	Phase 3 reactive power.	32	Current of per phase
7	Average line to line volts.	20	Total system reactive power.	33	Active power of per phase
8	Phase 1 current.	21	Phase 1 apparent power.	34	Reactive power of per phase
9	Phase 2 current.	22	Phase 2 apparent power.	35	Apparent power of per phase
10	Phase 3 current.	23	Phase 3 apparent power.	36	Power factor of per phase
11	Average line current.	24	Total system apparent power.		
12	Neutral current.	25	Phase 1 power factor.		

Note: Alarm objects with number in the range of 30-36 represent that when the parameters of any one of the three phases detected by the electricity meter exceed the alarm threshold, the alarm action will be triggered.

(2) Please make sure during the setting: HC>HO >LO >LC

Table-2 A unit of alarm parameter.

Alarm parameter	Unit	Alarm parameter	Unit	Alarm parameter	Unit
Phase 1 line to neutral volts.	V	Phase 3 current.	A	Total system reactive power.	kvar
Phase 2 line to neutral volts.	V	Average line current.	A	Phase 1 apparent power.	kVA
Phase 3 line to neutral volts.	V	Neutral current.	A	Phase 2 apparent power.	kVA
Average line to neutral volts.	V	Phase 1 active power.	kW	Phase 3 apparent power.	kVA
Line 1 to Line 2 volts.	V	Phase 2 active power.	kW	Total system apparent power.	kVA
Line 2 to Line 3 volts.	V	Phase 3 active power.	kW	Phase 1 power factor.	None
Line 3 to Line 1 volts.	V	Total system active power.	kW	Phase 2 power factor.	None
Average line to line volts.	V	Phase 1 reactive power.	kvar	Phase 3 power factor .	None
Phase 1 current.	A	Phase 2 reactive power.	kvar	Total system power factor.	None
Phase 2 current.	A	Phase 3 reactive power.	kvar	Frequency of supply voltages.	Hz

(3) SOE information format: type-event cause-alarm value-year-month-date -hour-min-second;

Type: 0~67 and 99 (4 table-3)

Event cause: 0 = null; 1 and 2 refer to the cause of event. 1 = HC alarm caused event; 2 = LC alarm caused event

Alarm value: The value that causes an alarm

Year: the year when event happened. For example: 2017, year=17;

Month: the month when event happened.

Date: the date when event happened;

Hour: the hour when event happened;

Min: the Minute when event happened

Second: the second when event happened

(4) Table-3 Event descriptions

Number	Event description	Number	Event description	Number	Event description
0	L1 Voltage alarm	14	L2 active power alarm	28	Total PF alarm
1	L2 Voltage alarm	15	L3 active power alarm	29	Frequency alarm
2	L3 Voltage alarm	16	Total active power alarm	60	Power on
3	L-N Average voltage alarm	17	L1 reactive power alarm	61	Power off
4	L1-2 Voltage alarm	18	L2 reactive power alarm	62	CT2 change
5	L2-3 Voltage alarm	19	L3 reactive power alarm	63	CT1change
6	L3-1 Voltage alarm	20	Total reactive power alarm	64	PT2change
7	L-L Average voltage alarm	21	L1 apparent power alarm	65	PT1change
8	L1 Current alarm	22	L2 apparent power alarm	66	Energy reset
9	L2 Current alarm	23	L3 apparent power alarm	67	Demand info reset
10	L3 Current alarm	24	Total apparent power alarm	68	Active energy reset

11	Average current alarm	25	L1 PF alarm	69	Reactive energy reset
12	Neutral current alarm	26	L2 PF alarm	70	History log energy reset
13	L1 active power alarm	27	L3 PF alarm	99	Null

Digital input status class parameters

Read Input Status [Function code : 02H]				Register Address [Hex]		
Parameter	Description	Length h (bits)	Data Format	Hig h Byte	Low Byte	Mod e
DI-1 status	DI1 status, 1=ON, 0=OFF	1	Binary	00	00	R
DI-2 status	DI2 status, 1=ON, 0=OFF	1	Binary	00	01	R
DI-3 status	DI3 status, 1=ON, 0=OFF	1	Binary	00	02	R
DI-4 status	DI4 status, 1=ON, 0=OFF	1	Binary	00	03	R

Digital output status class parameters

Read Coil Status [Function code : 01H]				Register Address [Hex]		
Parameter	Description	Length h (bits)	Data Format	Hig h Byte	Low Byte	Mod e
DO-1 status	DO1 status, 1=ON, 0=OFF	1	Binary	00	00	R
DO-2 status	DO2 status, 1=ON, 0=OFF	1	Binary	00	01	R

Digital output control class parameters

Force Single Coil [Function code : 05H]				Register Address [Hex]		
Parameter	Description	Length (bytes)	Data Format	High Byte	Low Byte	Mode
Control DO-1	0xFF00=ON, 0x0000=OFF	2	HEX	00	00	W
Control DO-2	0xFF00=ON, 0x0000=OFF	2	HEX	00	01	W

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

4, Read Input Status

Example: Read DI1~4 status

Request: 01 02 00 00 00 04 79 C9

Where, 01 = Meter address

02 = Function code
00 = High byte of registers starting address
00 = Low byte of registers starting address
00 = High byte of read DI number
04 = Low byte of read DI number
79 = CRC Low
C9 = CRC High

Response: 01 02 01 03 E1 89

Where, 01 = Meter address

02 = Function code
01 = Byte Count
03 = Data, (DI status)
E1 = CRC Low
89 = CRC High

Note: Data=0x03 = 0000 0011 (Binary Value).

Bit 0 refers to the status of DI-1. The value is 1, which means DI-1 is on.

Bit 1 refers to the status of DI-2. The value is 1, which means DI-2 is on

Bit 2 refers to the status of DI-3. The value is 0, which means DI-3 is off

Bit 3 refers to the status of DI-4. The value is 0, which means DI-4 is off

5, Read Coil Status

Example: Read DO1~2 status

Request: 01 01 00 00 00 02 BD CB

Where, 01 = Meter address

01 = Function code
00 = High byte of registers starting address
00 = Low byte of registers starting address
00 = High byte of read DO number
02 = Low byte of read DO number
BD = CRC Low
CB = CRC High

Response: 01 01 01 02 D0 49

Where, 01 = Meter address

01 = Function code
01 = Byte Count
02 = Data, (DO status)
D0 = CRC Low
49 = CRC High

Note: Data=0x02 = 0000 0010 (Binary Value).

Bit 0 refers to DO-1 status. The value is 0, which means DO-1 is open

Bit 1 refers to DO-2 status. The value is 1, which means DO-1 is close

6, Force Single Coil

Example: Control DO1=ON

Request: 01 05 00 00 FF 00 8C 3A

Where, 01 = Meter address

05 = Function code
00 = High byte of registers starting address

00 = Low byte of registers starting address

FF = High byte of DO control data

00 = Low byte of DO control data

8C = CRC Low

3A = CRC High

Response: 01 05 00 00 FF 00 8C 3A

Where, 01 = Meter address

05 = Function code

00 = High byte of registers starting address

00 = Low byte of registers starting address

FF = High byte of DO control data

00 = Low byte of DO control data

8C = CRC Low

3A = CRC High