Three-phase multi-function power meter specification

I. Product features

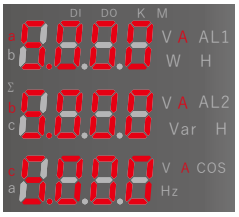
A multifunctional power meter is a device with programmable measurement, display, digital communication, and pulse transmission output functions. It can perform electrical quantity measurement, energy metering, data display, collection, and transmission. It is widely used in substation automation, distribution automation, intelligent buildings, and internal power measurement, management, and evaluation within enterprises. The voltage and current measurement accuracy is 0.5 class, featuring LED on-site display and remote RS-485 digital communication interface, using the MODBUS-RTU communication protocol.

Technical parameters

1. Sampling range:	The AC voltmeter 0-600V requires an external voltage transformer if the sampling exceeds 600V, and the AC ammeter 0-6A requires an external current transformer if the sampling exceeds 6A
2. Harmonic range:	Each phase current, voltage 2-31 harmonic sub-harmonic 0.01%-99.99% (customizable 2-51 sub-harmonic) THD 0.1%-999.9%
3. sampling rate:	Measurement: 1.0 S/ times, harmonic: 0.5 S/ times
4. accuracy of measuring:	±0.5%FS
5. Harmonic accuracy:	±0.05%FS
6. display mode:	LED, LCD, TFT display, subject to actual product.
7. Input loop power:	Current <0.5VA voltage <0.2VA
8. Power Supply Voltage:	AC220V, AC/ DC89-265V, AC/ DC5-48V, system power consumption <0.3
9. Alarm output:	VA independent relay output, contact capacity 250Vac/5A,30Vdc/5A
10. Transmitter output:	It can be set to switch 4-20ma or 0-20ma, with accuracy ±0.5%FS, load capacity
11. communication interface:	<900Ω, output common source RS485 serial communication, MODBUS_ RTU format
12. on-off input:	Passive dry node, optocoupler isolation
13. work environment:	Temperature-40 -85 , humidity <85%RH non-corrosive
14. reliability:	gas static: air> 8 KV, contact>4 KV Wave surge:> 4 KV Cluster pulse:> 4 KV Voltage withstand:> 2 KV

list view grid view:	Left button	right hand button	Set the key	Confirm key
numerical model:	increase key	Reduce key	shift key	Backspace key

3. Diagram of page display:



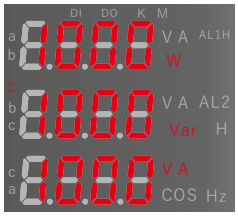
The three-phase current is displayed separately

IA、IB、IC
In the left image
IA = 5A, IB = 5A, IC = 5A shows the current as a single value
The input current is multiplied by the set CT ratio

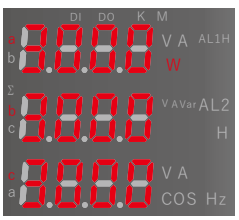
The three-phase voltage is displayed separately

UA、UB、UC
In the left image
UA = 220V, UB = 220V, UC = 220V The displayed voltage is a single value
The input voltage is multiplied by the set PT ratio

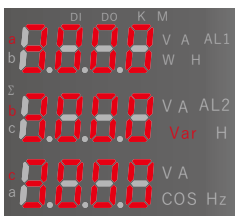
The three-phase line voltages Uab, Ubc and Uca are shown respectively
In the left image
Uab=380V、Ubc=380V、Uca=380V



The display shows the total power W, the total reactive power var, and the apparent power VA in K lights
For Kw, Kvar.
Left figure
P=1000w,Q=1000var,S=1000VA



Three-phase phase power is divided into active power



Three-phase phaseless reactive power

Three-phase phase separation apparent power

Total three-phase power factor

Three-phase phase power factor

Frequency: 50HZ

Ep represents positive active power

The maximum measurement is 99999999 Mw/h

EP_ represents reverse active power

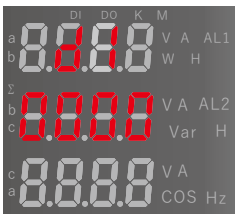
The maximum measurement is 99999999 Mw/h

Eq represents positive reactive power

The maximum measurement is 99999999Mvar/h

Eq_ represents the reverse active power energy

The maximum measurement is 99999999Mvar/h

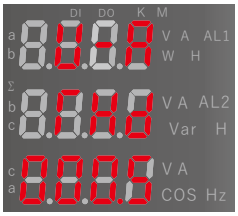


On-off input

1 means open, 0 means closed

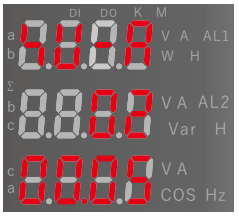
Switch output

1 means open, 0 means closed



For example, the total harmonic distortion of UA phase voltage THD in the left figure is 000.5

Note: There are 6 interfaces for query, which are UA, UB, UC, IA, IB and IC. You can switch between them by pressing left and right keys



For example, the left figure shows that the second harmonic of UA phase voltage is 0.05

Note: A total of 2-31 harmonics can be queried by switching left and right keys to query UB, UC, IA, IB, IC

The query method is consistent with UA

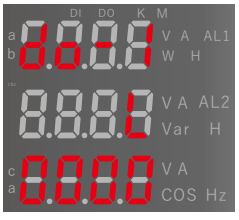
The default password for the menu password interface is 0001

Main menu interface

Press the left and right keys to enter the switch quantity analog quantity Settings press SET to enter the menu sub-interface

Example: The first switch quantity is highal arm

Note:There are 4 high alarm channel sin total,which can beswitchedbypressingthe leftandrightkeys.Therange is0-9999

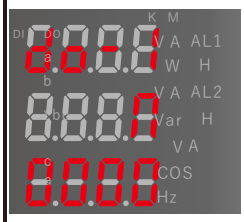


Example: Switching quantity first low alarm

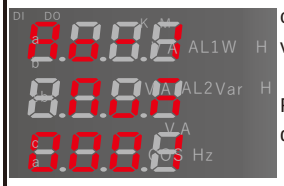
Note: There are four low alarm channels in total, which can be switched by pressing the left and right keys to set the range from 0 to 9999

Example: Switch output first alarm channel
The left image shows channel 1 representing the A-phase voltage alarm
There are a total of 52 alarm channels
For details, please refer to the alarm channel instructions

The ratio of the first switch alarm value to
Setting range 0.001-1000K



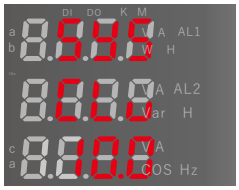
Switching value first alarm return value
Set range 0-9999



For example,the left figure of the first analog channel represents the A phase voltage analog value of channel 1.There are a total of 32 analog channels
Refer to the simulation channel description for details

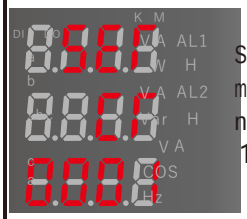
The first route
Analog range
The left image shows 5000
set range
0-9999

The first route
Analog range
multiple ratio
The ratio of the left image is 1 times
set range
0.001-1000K



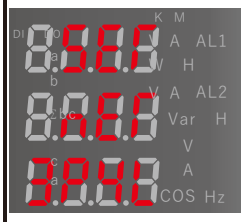
Set the minimum measurement voltage
The left image shows 10V
When the voltage input is less than 10V
Display as 0
The minimum setting is 1V

Set the minimum measurement current to 1A on the left
When the voltage input is less than 1A, it is displayed as 0
The minimum is set to 10mA



Set the current multiplier range:
1-9999

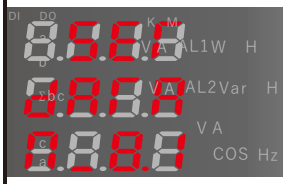
Set the voltage multiplier range:
1-9999



Switch the wiring mode 3 P 3L/3P4 L

Set the communication address setting range 0-254

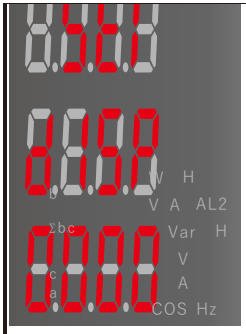
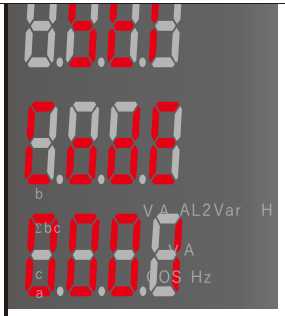
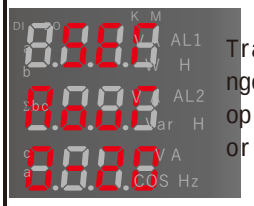
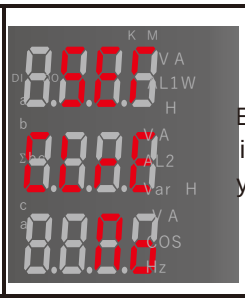
Set the baud rate
Optional 2400/4800/9600/
14400/19200/38400 (custom)



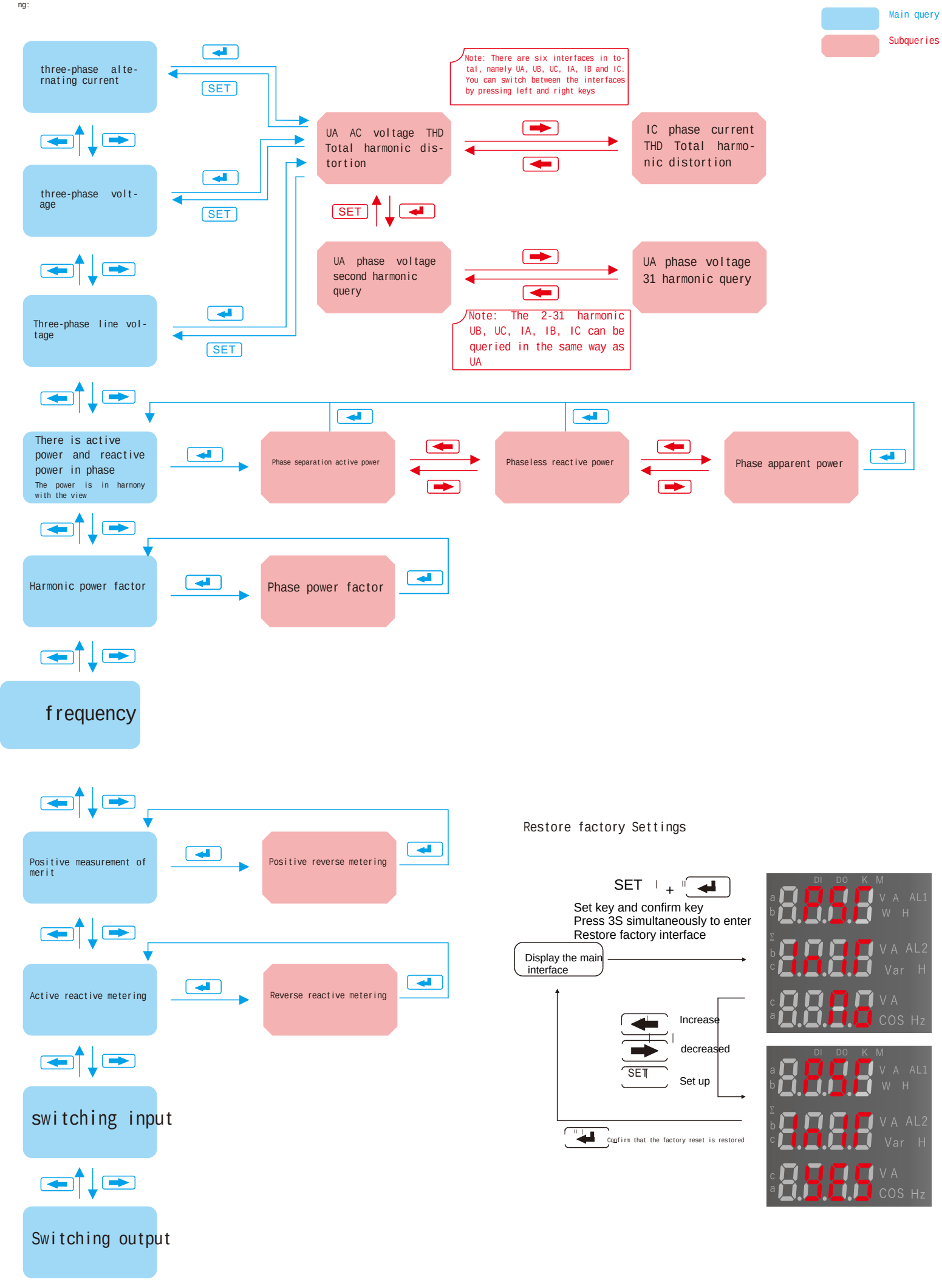
Set up data structures
n.8. 1 no check bit, o.8. 1 odd check bit, e.8. 1 even check bit, n.8.2 2-bit stop bit

Interface switching settings:

Set the menu interface password

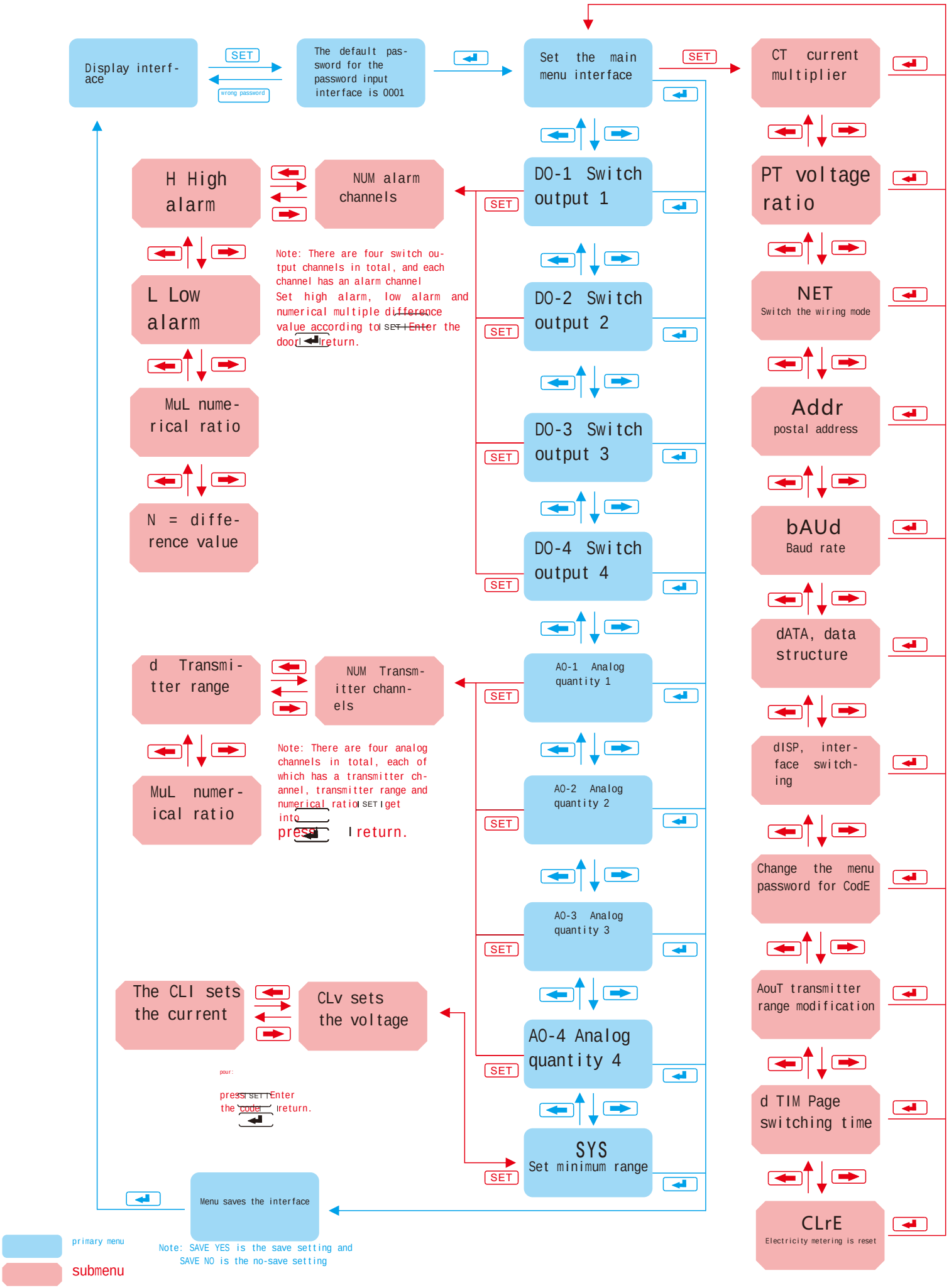
	0 for automatic interface loop, 1 for current interface, 2 for phase voltage interface, 3 for line voltage interface, 4 for combined active power, combined reactive power, and combined apparent power interface, 5 for combined power factor interface, 6 for frequency interface, 7 for active power metering interface, 8 for reactive power metering interface, 9 for switch input, 10 for switch output	
	Transmitter range switching is optional: 0-20mA or 4-20mA	
Switch the interface time when the interface automatically cycles		
Electricity metering reset YES means yes NO means no		

4. Schematic diagram of display interface switching:

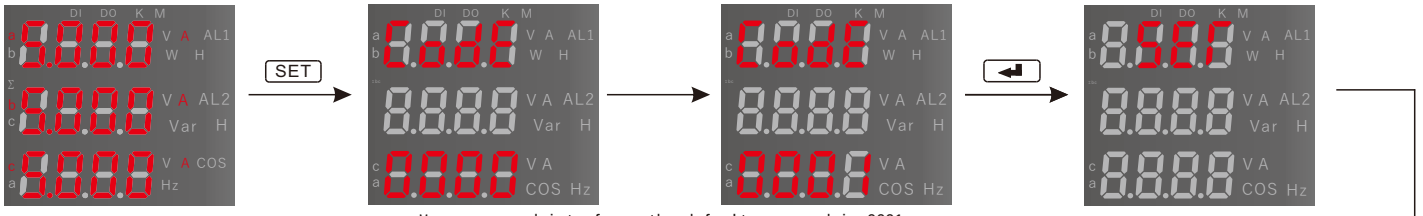


Restore factory Settings

5. Schematic diagram of programming menu switching:



Change the current multiplier setting. Take 5A to 100/5A as an example, the interface number of current multiplier should be adjusted to 20

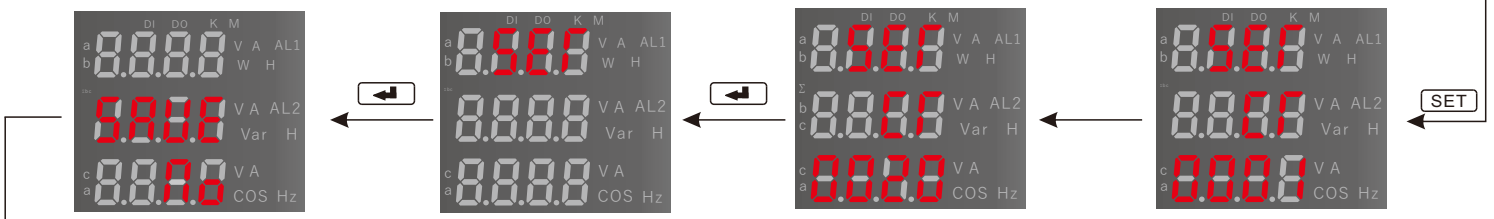


Measure the inte-rface

Menu password interface, the default password is 0001

The SET key number starts to flash, press ↵ It is 0001

Main menu interface

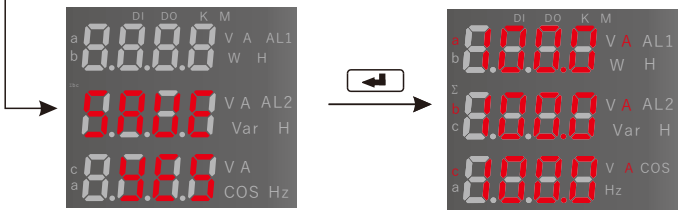


The current ratio interface starts to flash according to the SET number,

To switch to a ten-digit number, press SET once. To switch to a ten-digit number, press twice ↵ The number is 21. Switch to the unit place by pressing SET three times, and press once → The number is 20.

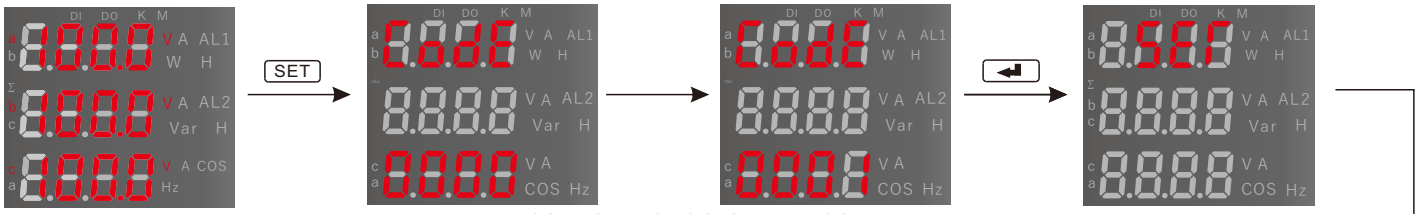
Main menu interface

Open the Settings screen, Press SET once, press once ↵ Change NO to YES



Measure the inte-rface

Change the voltage multiplier setting. Take 100V to 10/0.1 KV as an example, the voltage multiplier interface number should be adjusted to 100

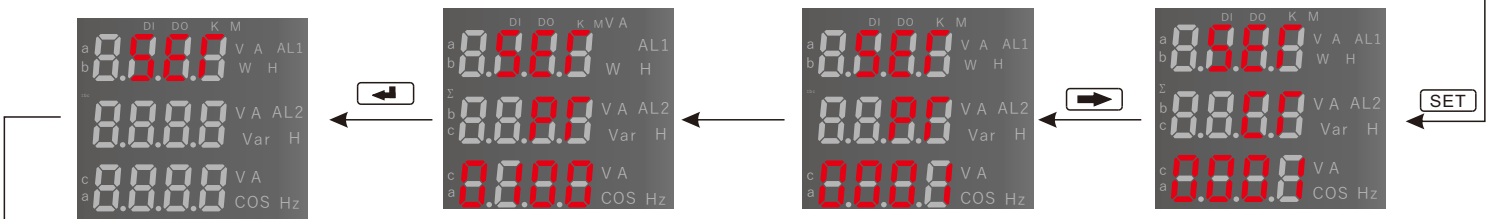


Measure the inte-rface

Menu password interface, the default password is 0001

The SET key number starts to flash. Press ↵ It is 0001

Main menu interface

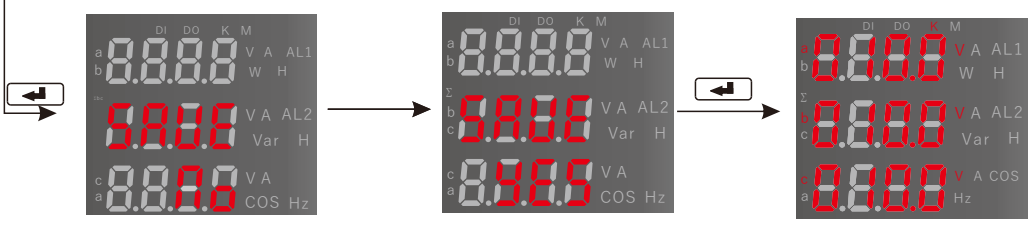


Current ratio

Voltage ratio interface, start flashing according to SET number,

To switch to the hundred place by pressing the SET number twice, press the number 101 once, and to switch to the unit place by pressing the SET number twice, press once → The number is 100.

Main menu interface



Open the Settings screen, Press SET once, press once ↵ Change NO to YES

Measure the inte-rface

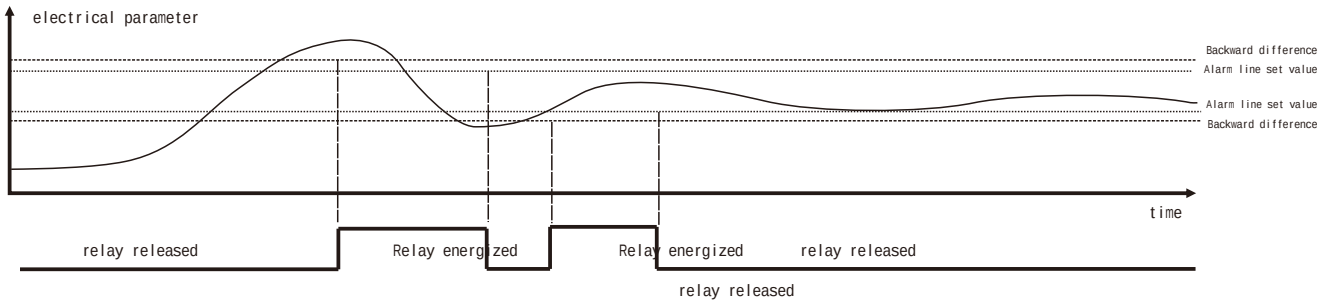
VI. Description of alarm channel and transmitter channel number:

Number	Alarm channel description	Transmitter channel description
1	A phase voltage alarm	A phase voltage transmitter
2	Phase B voltage alarm	Phase B voltage transmitter
3	Phase C voltage alarm	Phase C voltage transmitter
4	Ab line voltage alarm	Ab line voltage transmitter
5	BC line voltage alarm	BC line voltage transmission
6	Ca line voltage alarm	Ca line voltage transmitter
7	A phase current alarm	A phase current transformer
8	Phase B current alarm	Phase B current transformer
9	Phase C current alarm	Phase C current transformer
10	A phase has a power alarm	A phase has active power transmission
11	Phase B active power alarm	Phase B active power transmitter
12	Phase C active alarm	Phase C has active power transmission
13	The alarm is triggered by the harmoniza-tion	Harmony brings success
14	A phase reactive power alarm	A phase reactive power transmitter
15	Phase B reactive power alarm	Phase B reactive power transmitter
16	Phase C reactive power alarm	Phase C reactive power transmitter
17	Compliance with reactive power alarm	Comprehensive reactive power transmission
18	A phase-to-phase alarm is triggered	A phase is transmitted
19	Phase B alarms	Phase B is in communication
20	Phase C is alarmed	Phase C is in communication
21	The alarm is visualized in harmony	Compassion is transmitted
22	A phase power factor alarm	A phase power factor transmitter
23	Phase B power factor alarm	Phase B power factor transmitter
24	Phase C power factor alarm	Phase C power factor transmitter
25	Power factor alarm	Comprehensive power factor transmitter
26	Frequency alarm	Frequency transmitters
27	A phase voltage THD alarm	A phase voltage THD transmitter
28	Phase B voltage THD alarm	Phase B voltage THD transmitter
29	Phase C voltage THD alarm	Phase C voltage THD transmitter
30	A phase current THD alarm	A phase current THD transmitter
31	THD alarm for phase B current	THD transmitter for phase B current
32	C phase current THD alarm	Phase C current THD transmitter
33	Phase voltage alarm simultaneously	
34	The line voltage is also alarmed	
35	The current alarm is simultaneous	
36	Positive active power alarm	
37	Reverse active power alarm	
38	Positive reactive power alarm	
39	Reverse reactive power alarm	
40	Positive measurement alarm is performed	
41	Power reverse metering alarm	
42	No reactive positive metering alarm	
43	Anti-oscillation reverse metering alarm	
44	Switch input 1 alarm	
45	Switch input 2 alarm	
46	Switch input 3 alarm	

47	Switch input 4 alarm	
48	Reserve	
49	Reserve	
50	Reserve	
51	Reserve	
52	Reserve	

Instructions for setting up the alarm channel:

Type of alarm	Alarm number	Set the alarm value high	Set the low alarm value	The alarm data is set to the ratio of the value	Alarm return difference value	Warning condition
Ua>10kV alarm	1	1000	0	10	2	Ua>(1000+2)*10V
Ib>80A alarm	8	80	0	1.000	2	Ib>(80+2)*1A
Uab>100V alarm <20V alarm	4	1000	200	0.100	2	Uab>(1000+2)*0.1 V Uab<(200-2)*0.1 V
Phase C>30kW active power alarm	12	300	0	100.0	1	Phase C is active >(300+1)*100W
A phase>30kW reactive power alarm	14	3000	0	10.00	2	Phase A reactive power >(3000+2)*10W
Compliance>100MW apparent alarm	21	100	0	1000.K	0	The sum of the images is (100+0)*1000000 W
Power factor> 0.956 <0.856 alarm	25	956	856	0.001	2	Power factor >(956+2)*0.001 <(856-2)*0.001
Alarm when A phase voltage THD> 10%	27	10	0	1.000	2	A phase voltage THD>(10+2)*1%
Alarm when A phase voltage THD> 10.8%	27	108	0	0.100	2	THD> (108+2)*0.1% for phase A voltage
Positive active power alarm	36	Have nothing to do with	Have nothing to do with	Have nothing to do with	Have nothing to do with	Coherent active state: positive active
Active reverse metering>1000kW.h	37	1000	0	1.000	0	Active reverse metering> (1000+0) * 1kW.h
Switch input 2 alarm	45	Have nothing to do with	Have nothing to do with	Have nothing to do with	Have nothing to do with	The switch input 2 dry node is closed



Transmitter channel setting instructions:

Transmitter type	Transmitter number	Send the transmitter range value	The transmitter data is set to the ratio value	Transmitter range
Ua transmits 0-10kV	1	1000	10	0V - 1000*10V
Ub sends 0-500V	2	500	1.000	0V - 500*1V
Uc transmitter 0-100MV	3	100	1000.K	0V - 100*1000000V
IA transmitter 0-50A	7	50	1.000	0A - 50*1A
The active power transmitter of phase A is 0-3000W	10	3000	1.000	0W - 3000*1W
Power factor transmitter 0 -1.000	25	1000	0.001	0 - 1*0.001
The reactive power transmitter is 0-10kW	17	10	1000	0W - 10*1000W

The A phase voltage THD varies from 0% to 50%	27	50	1.000	0% - 50*1%
Frequency transmitter 0-100Hz	26	1000	0.100	0Hz-1000*0.100Hz

7. Description of register communication address:

Sixteen Radix	Decimal system	Data content	Data format	Data Length
0	0	UA voltage	FLOAT	2
2	2	UB voltage	FLOAT	2
4	4	UC voltage	FLOAT	2
6	6	UAB voltage	FLOAT	2
8	8	UBC voltage	FLOAT	2
A	10	UCA voltage	FLOAT	2
C	12	IA current	FLOAT	2
E	14	IB current	FLOAT	2
10	16	IC current	FLOAT	2
12	18	Phase A is active	FLOAT	2
14	20	Phase B has active power	FLOAT	2
16	22	Phase C is active	FLOAT	2
18	24	Harmony is effective	FLOAT	2
1A	26	Phase A reactive power	FLOAT	2
1C	28	Phase B reactive power	FLOAT	2
1E	30	Phase C reactive power	FLOAT	2
20	32	Harmony is useless	FLOAT	2
22	34	A phase is relative to power	FLOAT	2
24	36	Phase B is relative to power	FLOAT	2
26	38	Phase C is the relative power	FLOAT	2
28	40	The power is in harmony with the view	FLOAT	2
2A	42	Power factor of phase A	FLOAT	2
2C	44	Phase B power factor	FLOAT	2
2E	46	Phase C power factor	FLOAT	2
30	48	Harmonic power factor	FLOAT	2
32	50	UIA phase difference	FLOAT	2
34	52	UIB phase difference	FLOAT	2
36	54	UIC phase difference	FLOAT	2
38	56	Quadrant values	FLOAT	2
3A	58	State value	FLOAT	2
3C	60	Frequency of phase A	FLOAT	2
			FLOAT	

56	86	UBC voltage	UINT	1
57	87	UCA voltage	UINT	1
58	88	IA current	UINT	1
59	89	IB current	UINT	1
5A	90	IC current	UINT	1
5B	91	Type of quadrant value	UINT	1
5C	92	Reserve	UINT	1
5D	93	Reserve	UINT	1
5E	94	Reserve	UINT	1
5F	95	Reserve	UINT	1
60	96	UA harmonic 2	UINT	1
61	97	UA harmonic 3	UINT	1
62	98	UA harmonic 4	UINT	1
63	99	UA harmonic 5	UINT	1
64	100	UA harmonic 6	UINT	1
65	101	UA harmonic 7	UINT	1
66	102	UA harmonic 8	UINT	1
67	103	UA harmonic 9	UINT	1
68	104	UA harmonic 10	UINT	1
69	105	UA harmonic 11	UINT	1
6A	106	UA harmonic 12	UINT	1
6B	107	UA harmonic 13	UINT	1
6C	108	UA harmonic 14	UINT	1
6D	109	UA harmonic 15	UINT	1
6E	110	UA harmonic 16	UINT	1
6F	111	UA harmonic 17	UINT	1
70	112	UA harmonic 18	UINT	1
71	113	UA harmonic 19	UINT	1
72	114	UA harmonic 20	UINT	1
73	115	UA harmonic 21	UINT	1
74	116	UA harmonic 22	UINT	1
75	117	UA harmonic 23	UINT	1
76	118	UA harmonic 24	UINT	1
77	119	UA harmonic 25	UINT	1
78	120	UA harmonic 26	UINT	1
79	121	UA harmonic 27	UINT	1
7A	122	UA harmonic 28	UINT	1
7B	123	UA harmonic 29	UINT	1
7C	124	UA harmonic 30	UINT	1
7D	125	UA harmonic 31	UINT	1
7E	126	UB harmonic 2	UINT	1
7F	127	UB harmonic 3	UINT	1
80	128	UB harmonic 4	UINT	1
81	129	UB harmonic 5	UINT	1
82	130	UB harmonic 6	UINT	1
83	131	UB harmonic 7	UINT	1
84	132	UB harmonic 8	UINT	1
85	133	UB harmonic 9	UINT	1
86	134	UB harmonic 10	UINT	1
87	135	UB harmonic 11	UINT	1

3E	62	Phase B frequency		2
40	64	Phase C frequency	FLOAT	2
42	66	Positive measurement of merit	FLOAT	2
44	68	Positive reverse metering	FLOAT	2
46	70	Active reactive metering	FLOAT	2
48	72	Reverse reactive metering	FLOAT	2
4A	74	Reserve	FLOAT	2
4C	76	Reserve	FLOAT	2
4E	78	Reserve	FLOAT	2
50	80	Reserve	FLOAT	2
52	82	UA voltage	UINT	1
53	83	UB voltage	UINT	1
54	84	UC voltage	UINT	1
55	85	UAB voltage	UINT	1

88	136	UB harmonic 12	UINT	1
89	137	UB harmonic 13	UINT	1
8A	138	UB harmonic 14	UINT	1
8B	139	UB harmonic 15	UINT	1
8C	140	UB harmonic 16	UINT	1
8D	141	UB harmonic 17	UINT	1
8E	142	UB harmonic 18	UINT	1
8F	143	UB harmonic 19	UINT	1
90	144	UB harmonic 20	UINT	1
91	145	UB harmonic 21	UINT	1
92	146	UB harmonic 22	UINT	1
93	147	UB harmonic 23	UINT	1
94	148	UB harmonic 24	UINT	1
95	149	UB harmonic 25	UINT	1
96	150	UB harmonic 26	UINT	1
97	151	UB harmonic 27	UINT	1
98	152	UB harmonic 28	UINT	1
99	153	UB harmonic 29	UINT	1
9A	154	UB harmonic 30	UINT	1
9B	155	UB harmonic 31	UINT	1
9C	156	UC harmonic 2	UINT	1
9D	157	UC harmonic 3	UINT	1
9E	158	UC harmonic 4	UINT	1
9F	159	UC harmonic 5	UINT	1
A0	160	UC harmonic 6	UINT	1
A1	161	UC harmonic 7	UINT	1
A2	162	UC harmonic 8	UINT	1
A3	163	UC harmonic 9	UINT	1
A4	164	UC harmonic 10	UINT	1
A5	165	UC harmonic 11	UINT	1
A6	166	UC harmonic 12	UINT	1
A7	167	UC harmonic 13	UINT	1
A8	168	UC harmonic 14	UINT	1
A9	169	UC harmonic 15	UINT	1
AA	170	UC harmonic 16	UINT	1
AB	171	UC harmonic 17	UINT	1
AC	172	UC harmonic 18	UINT	1
AD	173	UC harmonic 19	UINT	1
AE	174	UC harmonic 20	UINT	1
AF	175	UC harmonic 21	UINT	1
B0	176	UC harmonic 22	UINT	1
B1	177	UC harmonic 23	UINT	1
B2	178	UC harmonic 24	UINT	1
B3	179	UC harmonic 25	UINT	1
B4	180	UC harmonic 26	UINT	1
B5	181	UC harmonic 27	UINT	1
B6	182	UC harmonic 28	UINT	1
B7	183	UC harmonic 29	UINT	1
B8	184	UC harmonic 30	UINT	1
B9	185	UC harmonic 31	UINT	1

BA	186	IA harmonic 2	UINT	1
BB	187	IA harmonic 3	UINT	1
BC	188	IA harmonic 4	UINT	1
BD	189	IA harmonic 5	UINT	1
BE	190	IA harmonic 6	UINT	1
BF	191	IA harmonic 7	UINT	1
C0	192	IA harmonic 8	UINT	1
C1	193	IA harmonic 9	UINT	1
C2	194	IA harmonic 10	UINT	1
C3	195	IA harmonic 11	UINT	1
C4	196	IA harmonic 12	UINT	1
C5	197	IA harmonic 13	UINT	1
C6	198	IA harmonic 14	UINT	1
C7	199	IA harmonic 15	UINT	1
C8	200	IA harmonic 16	UINT	1
C9	201	IA harmonic 17	UINT	1
CA	202	IA harmonic 18	UINT	1
CB	203	IA harmonic 19	UINT	1
CC	204	IA harmonic 20	UINT	1
CD	205	IA harmonic 21	UINT	1
CE	206	IA harmonic 22	UINT	1
CF	207	IA harmonic 23	UINT	1
D0	208	IA harmonic 24	UINT	1
D1	209	IA harmonic 25	UINT	1
D2	210	IA harmonic 26	UINT	1
D3	211	IA harmonic 27	UINT	1
D4	212	IA harmonic 28	UINT	1
D5	213	IA harmonic 29	UINT	1
D6	214	IA harmonic 30	UINT	1
D7	215	IA harmonic 31	UINT	1
D8	216	IB harmonic 2	UINT	1
D9	217	IB harmonic 3	UINT	1
DA	218	IB harmonic 4	UINT	1
DB	219	IB harmonic 5	UINT	1
DC	220	IB harmonic 6	UINT	1
DD	221	IB harmonic 7	UINT	1
DE	222	IB harmonic 8	UINT	1
DF	223	IB harmonic 9	UINT	1
E0	224	IB harmonic 10	UINT	1
E1	225	IB harmonic 11	UINT	1
E2	226	IB harmonic 12	UINT	1
E3	227	IB harmonic 13	UINT	1
E4	228	IB harmonic 14	UINT	1
E5	229	IB harmonic 15	UINT	1
E6	230	IB harmonic 16	UINT	1
E7	231	IB harmonic 17	UINT	1
E8	232	IB harmonic 18	UINT	1
E9	233	IB harmonic 19	UINT	1
EA	234	IB harmonic 20	UINT	1
EB	235	IB harmonic 21	UINT	1

EC	236	IB harmonic 22	UINT	1
ED	237	IB harmonic 23	UINT	1
EE	238	IB harmonic 24	UINT	1
EF	239	IB harmonic 25	UINT	1
F0	240	IB harmonic 26	UINT	1
F1	241	IB harmonic 27	UINT	1
F2	242	IB harmonic 28	UINT	1
F3	243	IB harmonic 29	UINT	1
F4	244	IB harmonic 30	UINT	1
F5	245	IB harmonic 31	UINT	1
F6	246	IC harmonic 2	UINT	1
F7	247	IC harmonic 3	UINT	1
F8	248	IC harmonic 4	UINT	1
F9	249	IC harmonic 5	UINT	1
FA	250	IC harmonic 6	UINT	1
FB	251	IC harmonic 7	UINT	1
FC	252	IC harmonic 8	UINT	1
FD	253	IC harmonic 9	UINT	1
FE	254	IC harmonic 10	UINT	1
FF	255	IC harmonic 11	UINT	1
100	256	IC harmonic 12	UINT	1
101	257	IC harmonic 13	UINT	1
102	258	IC harmonic 14	UINT	1
103	259	IC harmonic 15	UINT	1
104	260	IC harmonic 16	UINT	1
105	261	IC harmonic 17	UINT	1
106	262	IC harmonic 18	UINT	1
107	263	IC harmonic 19	UINT	1
108	264	IC harmonic 20	UINT	1
109	265	IC harmonic 21	UINT	1
10A	266	IC harmonic 22	UINT	1
10B	267	IC harmonic 23	UINT	1
10C	268	IC harmonic 24	UINT	1
10D	269	IC harmonic 25	UINT	1
10E	270	IC harmonic 26	UINT	1
10F	271	IC harmonic 27	UINT	1
110	272	IC harmonic 28	UINT	1
111	273	IC harmonic 29	UINT	1
112	274	IC harmonic 30	UINT	1
113	275	IC harmonic 31	UINT	1
114	276	UATHD price	UINT	1
115	277	UBTHD price	UINT	1
116	278	UCTHD price	UINT	1
117	279	IATHD price	UINT	1
118	280	IBTHD price	UINT	1
119	281	ICTHD price	UINT	1
11A	282	CT Settings value	UINT	1
11B	283	PT Settings	UINT	1
11C	284	Channel switching	UINT	1
11F	287	Communication data structure	UINT	1
120	288	Display channel number	UINT	1
121	289	Menu password Settings	UINT	1
122	290	Analog output mode Settings	UINT	1
123	291	Display the sc-rolling time	UINT	1
124	292	1 is the switch output number	UINT	1
125	293	Low alarm for switch output at 1	UINT	1
126	294	High alarm of 1 switch output	UINT	1
127	295	1 is the multi-plier value of the switch out-put	UINT	1
128	296	1 is the switch output return value	UINT	1
129	297	2 is the switch output number	UINT	1
12A	298	Low alarm of two-way switch output	UINT	1
12B	299	High alarm of 2 nd switch output	UINT	1
12C	300	2 is the multi-plier of switch output	UINT	1
12D	301	2 is the switch output return value	UINT	1
12E	302	3 is the switch output number	UINT	1
12F	303	Low alarm of 3 switch output	UINT	1
130	304	The 3rd switch output is high alarm	UINT	1
131	305	3 is the multi-plier of switch output	UINT	1
132	306	3 is the switch output return value	UINT	1
133	307	4 is the switch output number	UINT	1
134	308	Low alarm of 4-bit switch out-put	UINT	1
135	309	4 high alarm for switch output	UINT	1
136	310	4 is the multi-	UINT	1

11D	285	Postal address	UINT	1
11E	286	Communication baud rate	UINT	1

		plier of switch output		
137	311	4 is the switch output return value	UINT	1
138	312	1 Analog output number	UINT	1
139	313	1 is the analog output range	UINT	1
13A	314	1 is the analog output multipl-ier	UINT	1
13B	315	2 is the analog output number	UINT	1
13C	316	2 is the analog output range	UINT	1
13D	317	2 is the analog output multipl-ier	UINT	1
13E	318	3 is the analog output number	UINT	1
13F	319	3 is the analog output range	UINT	1
140	320	3 is the analog output multipl-ier	UINT	1
141	321	4 is the analog output number	UINT	1
142	322	Channel 4 analog output range	UINT	1
143	323	4 analog output multiplier	UINT	1
144	324	Reserve	UINT	1
145	325	On-off input	UINT	1
146	326	The switch out-put is high	UINT	1
147	327	The switch out-put is low	UINT	1
148	328	Remote control output	UINT	1
149	329	Output state	UINT	1
14A	330	Reserve	UINT	1
14B	331	Product uptime	UINT	1
14C	332	Reserve	UINT	1
14D	333	Reserve	UINT	1

Rs485 Communication description:

Modbus Communication read operation:

From the machine: slave address + function code + data starting address + number of read addresses + CRC16

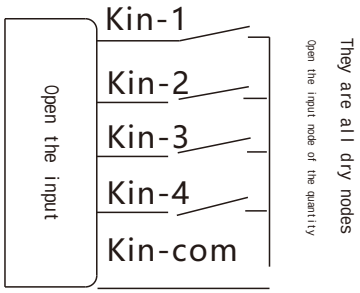
From machine return: from machine address + function code + number of data + data + CRC 16

Modbus Communication writing operation:

From machine reception: slave address + function code + data starting address + number of data addresses + number of data + data + CRC16

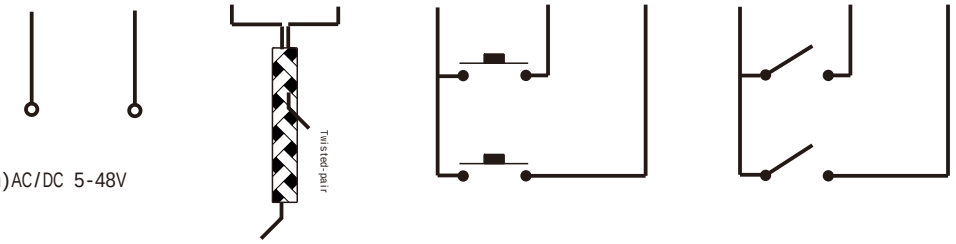
From machine return: from machine address + function code + data starting address + number of data addresses + CRC16 Modbus Function code: read multi-byte 0x 03, write single byte 0x 06

Switch input description:



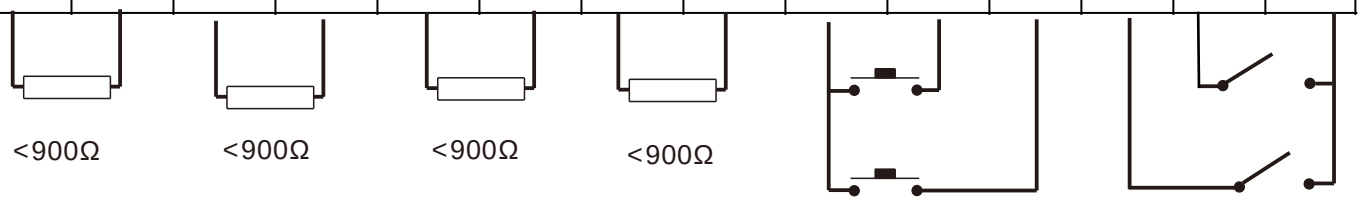
Hookup:

25	26	27	28	29	30	31	32	33	34
N	L	B-	A+	DIC	DI1	DI2	DOC	DO1	DO2



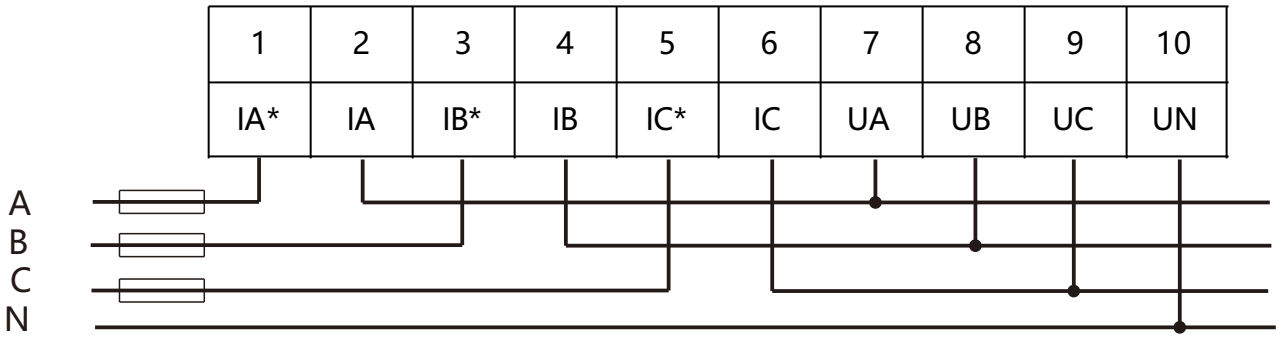
AC220V (standard)
AC/DC 89-265V (custom)AC/DC 5-48V (custom)

11	12	13	14	15	16	17	18	19	20	21	22	23	24
AO4+	AO4-	AO3+	AO3-	AO2+	AO2-	AO1+	AO1-	DI4	DI3	DIC	DO4	DO3	DOC

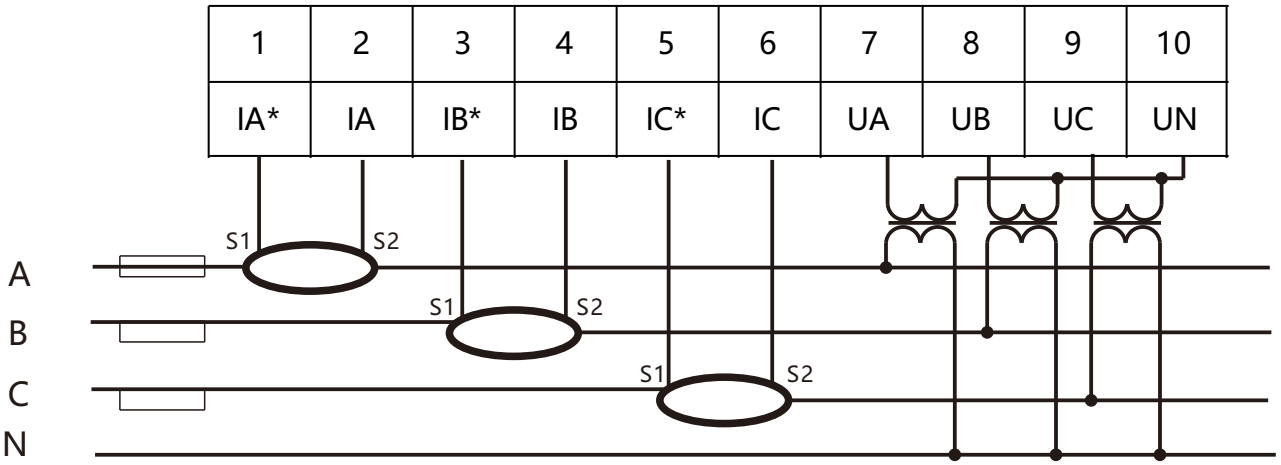


<900Ω <900Ω <900Ω <900Ω

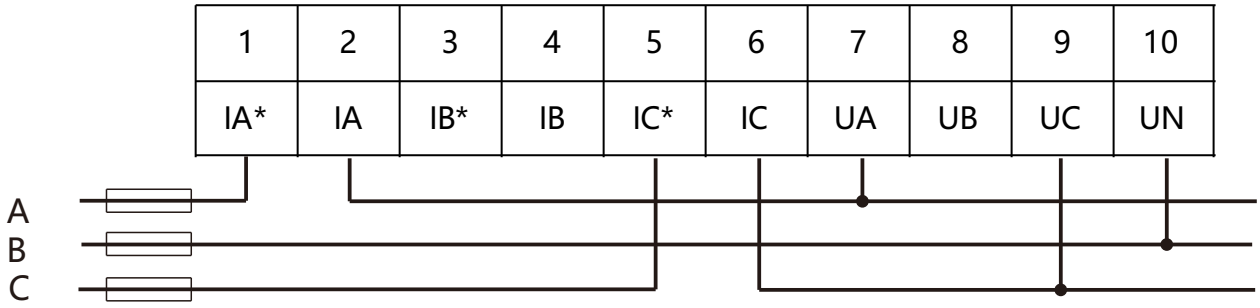
Three-phase four-wire direct connection mode:



Three-phase four-wire CT wiring mode:



Three-phase three-wire direct connection mode:



Three-phase three-wire CT wiring mode: