


YC Series

Digital Meter

OPERATION INSTRUCTION

CNC

Deliver
Power For Better Life

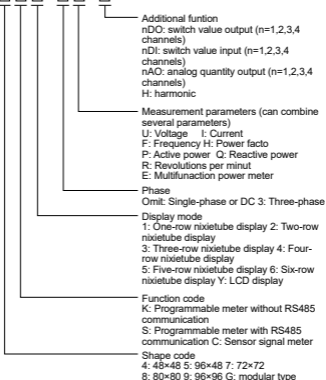
-  Before installing and using this product, please read this manual carefully and pay more attention to safety.

1.General

YC Series Digital Meter can measure single-phase or three-phase :Voltage,Current ,Frequency,Power factor,Active power,Reactive power,Revolutions per minute,Multifunction power . The meter have Single row or three rows digital LCD display.

2.Type designation

YC-□□□-□□+□



3. Technical data

	Technical parameters		Index
Input	Voltage	Rated value	AC 0~600V
		Over load	Consistent: 1.2 times instantaneous: 2 times/30s
		Consumption	<0.5VA (each phase)
		Impedance	>500kΩ
	Current	Rated value	AC 1A, 5A
		Over load	Consistent: 1.2 times instantaneous: 2times/1s
		Impedance	<2mΩ
Frequency		45~65Hz	
Measuring accuracy	Voltage, current		±(0.5%FS+one digit)
	Active reactive power		±(0.5%FS+one digit)
	Frequency		±0.1Hz
	Harmonic		The three-phase voltage/current 21 total harmonic content
	Power factor		±0.01PF
	Active energy		±0.5%(only for reference, not for meter-age)
	Reactive energy		±1.0%(only for reference, not for meter-age)
Power	Scope		AC 220V, 50/60Hz AC/DC 85~265V
	Consumption		<5VA
Safety	With-stand voltage	Input and power	>2kV50Hz/1min
		Input and output	>1kV50Hz/1min
		Output and power	>2kV50Hz/1min
	Insulating resistance		Any two of input, output, power, casing>20MΩ
Environment	Temperature		Operation: -10~50°C
			Storage: -25~70°C
	Humidity		≤85%RH, free of wet and corrosive gas
	Elevation		≤3000m

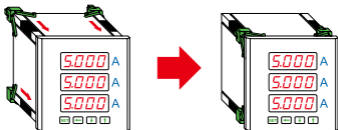
4. Installment and connection

4.1 Shape and cutout hole dimension(unit:mm)

Shape	Panel dimension		Case dimension			Cutout hole dimension	
	W	H	W	H	D	W	H
120×120Square	120	120	110	110	83	112	112
96×96Square	96	96	90	90	83	92	92
80×80Square	80	80	74	74	83	76	76
72×72Square	72	72	66	66	83	68	68
48×48Square	48	48	44	44	73	45	45

4.2 Method of installation

Choose the corresponding hole cutout dimension from the table above , make a hole in the installation screen, insert the instruments into the hole, place the four clamping pieces into the clamping holder and push and tighten them by hand.



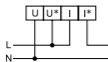
4.3 Wiring instructions

4.3.1 Terminal arrangement and function declaration of instrument (please accord to the one of instrument case)

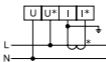
Auxiliary power supply (POWER) AC 220V,50/60Hz(- Can customize other values) Electrical quantity signal input :A B and C three-phase AC current or voltage. signal input port and I* is current live wire When connect please ensure the phase sequence and polarity of input signal respond with the terminals to avoid indicating value error When the voltage is higher than the rated input voltage of the product, you should consider of using PT and installing fuse of 1A at the voltage input port; while the current is higher than rated input current of the product, you should consider of using the exterior CT

4.3.2 Typical connection

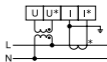
single-phase:



Voltage $\leq 600V$, input directly
Current $\leq 5A$, input directly

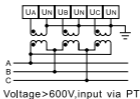
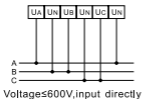
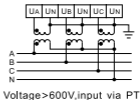
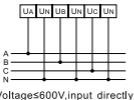
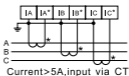
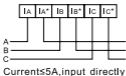


Voltage $\leq 600V$, input directly
Current $> 5A$, input via CT



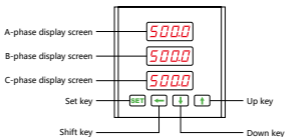
Voltage $> 600V$, input via PT
Current $> 5A$, input via CT

three-phase:







5. Programming and usage

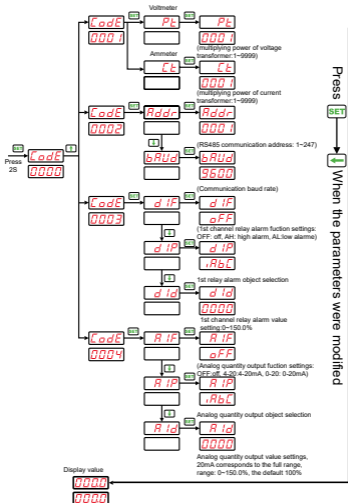
5.1 Panel description



5.2 Key function

-  **Set key:** Press this key 2s to enter the programmable mode Under the programmable mode it is used to save and return to the menu
-  **Shift key:** Under the programmable mode it is used to left shift the cursor one digit, and quit the programmable mode and return to the measuring value display interface.
-  **Down key:** Under the programmable mode, it is used for degression of parameter value or enter the next menu.
-  **Up key:** Under the programmable mode, it is used for progressive increase of parameter value or enter the previous menu.

5.3 Menuframework



5.4 Menu significations

Under the programmable mode, four menu setting items including of signal input, communication, switching value output annlog quantity output. Signal input code:**0001**;communication code:**0002**;switching value output code:**0003** ;annlog quantity output:**0004**.

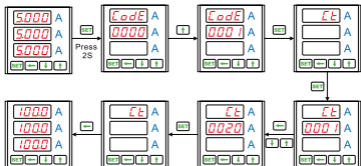
Menu	Parameter	Description
<i>Code</i>	0001, 0002 0003, 0004	Signal input code: ;Communication code: 0001 ;Switching value output code: 0002 ;Annlog quantity output: 0003
<i>Pt</i>	1~9999	Set multiplying power of voltage transformer:PT(Primary value/second value of voltage transformer) for example:PT=10KV/100V=100
<i>Ct</i>	1~9999	Set multiplying power of current transformer:CT(Primary value/second value of current transformer) for example:CT=300A/50A=60
<i>Addr</i>	1~247	RS485 communication address: 1~247
<i>baud</i>	1200, 2400 4800, 9600	Communication baud rate
<i>dIF</i>	OFF AH AL	1st channel relay alarm fuction settings:OFF:off, AH: high alarm, AL:low alarm
<i>dIP</i>	IABC,IA,IB,IC UABC,UA,UB,UC	1st channel relay alarm object selection:IABC,IA,IB,IC or UABC,UA,UB,UC
<i>dId</i>	0~150.0%	1st channel relay alarm value setting:0~150.0%

<i>d2F</i>	OFF AH AL	2nd channel relay alarm function settings:OFF:off, AH: high alarm, AL: low alarm
<i>d2P</i>	IABC,IA,IB,IC UABC,UA,UB,UC	2nd channel relay alarm object selection:IABC,IA,IB,IC or UABC,UA,UB,UC
<i>d2d</i>	0~150.0%	2nd channel relay alarm value setting:0~150.0%
<i>R1F</i>	OFF 0-20 4-20	Analog quantity output function settings:OFF: off, 4-20:4-20mA, 0-20: 0-20mA
<i>R1P</i>	IABC,IA,IB,IC UABC,UA,UB,UC	Analog quantity output object selection:IABC,IA,IB,IC or UABC,UA,UB,UC
<i>R1d</i>	0~150.0%	Analog quantity output value settings,20mA corresponds to the full scale,range: 0~150.0%, the default 100%

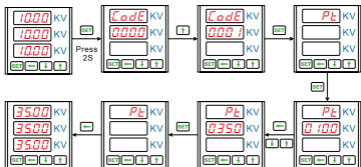
5.5 Programming operation examples

The measuring range of instruments has been set as the same parameters provided by users at the factory. Users should check if the input network, voltage/current measuring range and transformer multiplying power are consistent with the actual input again before use.

Example 1 The factory default parameter is AC 5A(CT 1) If the current transformer is 100A 5A should modify the CT multiplying power as 20(100/5)



Example 2: The factory default parameter is AC 10KV/100V($PT=10KV/100V=100$); If the voltage transformer is 10KV/100V should modify the T multiplying power as 350($PT=35KV/100V=350$)



6.Cautions

- 6.1. Please confirm if the power supply, input signal and each terminal wiring of the meter are correct and reliable before applying the power.
- 6.2. The instrument must be preheated for 15 minutes to guarantee the precision of measurement.
- 6.3. The instrument should not be rapped, knocked and vibrate excessively and its using environment should meet the technical requirements.
- 6.4. The meter has been calibrated according to the measuring range required by the customer upon order. The user should check once again if the measuring range of the meter is fit with the specifications of the transformer and set the measuring range again if not.

7.Packing and Storage

The instrument and accessories with packing should keep storage conditions cool and dry and free of wet and corrosive gas with temperature not more than 70° C and not less than -40° C, and relative humidity $\leq 85\%RH$.



CERTIFICATE

Product Model : YC Series

Inspector : CNC 001

Production date: Printed on the product
or package.

This product is qualified according
to the delivery inspection

CNC ELECTRIC

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CNC

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