

Digital Panel Meter

HCD19 - -
 1 2 3 4 5 6

1. Product code
2. Input Signal Mode
4--AC signal input 5--DC signal input
3. Function Mode
I--current U--voltage P--active power Q--reactive power H--power factor F--frequency
E--multifunctional energy power monitoring meter
4. Outline Mode
4--48X48 5--96X48 7--72X72
9--96X96
5. X--digital panel meter
D--intelligent transmission meter
K--intelligent programmable meter
S--intelligent programmable alarm meter
6. 1--digital display 4- triple digital display 7-- Dual digital display



HCD194I-9X1



HCD194U-7X1

Specification:

The instruments comply with IEC51.

Over load

The instruments are designed to withstand 1.2 times rated current and voltage for 2 hours, Ammeters are also designed for 10 times rated current and voltmeters and frequency meters for 2 times rated voltage for 0.5 seconds.

Dielectric Test:

All meters are designed to 2kv AC RMS for 1 minute

Environment:

The meters are suitable to work between -10 °C to 60 °C with relative humidity up to 90%

Damping time : Less than 3 seconds

Mounting Clamps:

Mounting clamps are provided to fix the meter flush type on panel

Size/Type	Hatch Size
48mm sq.	44mm
72mm sq.	66mm
96 mm sq.	90mm
96x48 mm	91x45mm

Ammeters & Voltmeters

	Single Phase Digital AC/DC Ammeters			
Model	HCD194I-4X1 HCD195I-4X1	HCD194I-7X1 HCD195I-7X1	HCD194I-5X1 HCD195I-5X1	HCD194I-9X1 HCD195I-9X1
Size	48x48mm	72x72mm	96x48mm	96x96mm
Display	3 1/2 Digit, Red LED Display			
Accuracy	Class 1.0 & Class 0.5			
Auxiliary Supply	110V, 220V(50/60Hz),24VDC			
Standard	IEC51			
Range	For AC meter, CT operated, secondary 5A or 1A for DC meters ,Shunt(75mV) operated			
Consumption	<1.8VA			
Signal Consumption	<0.3VA			
Protection	IP20			
Operation temperature	-10 °C to +60 °C			
Test voltage	2kV			

	Single Phase Digital AC/DC Voltmeters			
Model	HCD194U-4X1 HCD195U-4X1	HCD194U-7X1 HCD195U-7X1	HCD194U-5X1 HCD195U-5X1	HCD194U-9X1 HCD195U-9X1
Size	48x48mm	72x72mm	96x48mm	96x96mm
Display	3 1/2 Digit, Red LED Display			
Accuracy	Class 1.0 & Class 0.5			
Auxiliary Supply	AC 110V,220 (50/60Hz), 24VDC			
Standard	IEC51			
Range	500V or PT Operated-/110V			
Consumption	<1.8VA			
Signal Consumption	<0.3VA			
Protection	IP20			
Operation temperature	-10 °C to +60 °C			
Test voltage	2kV			

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HCD194I-9X4



HCD194I-9K4

	Three Phase Digital AC Ammeters		Three Phase Digital AC Voltmeters	
Model	HCD194I-9X4	HCD194I-7x4	HCD194U-9X4	HCD194U-7x4
Size	96x96mm	72x72mm	96x96mm	72x72mm
Display	3 1/2 Digit, Red LED Display		3 1/2 Digit, Red LED Display	
Accuracy	Class 1.0 & Class 0.5		Class 1.0 & Class 0.5	
Auxiliary Supply	AC 110V, 220V(50/60Hz), 24VDC		AC110V, 220V(50/60Hz), 24VDC	
Standard	IEC51		IEC51	
Range	CT Operated, Secondary 5A or 1A		500V or PT Operated-/110V	
Consumption	<1.8VA		<1.8VA	
Signal Consumption	<0.3VA		<0.3VA	
Protection	IP20		IP20	
Operation temperature	-10°C to +60°C		-10°C to +60°C	
Test voltage	2kV		2kV	

	Three Phase Digital AC Ammeters		Three Phase Digital AC Voltmeters	
Model	HCD194I-9K4	HCD194I-7K4	HCD194U-9K4	HCD194U-7K4
Size	96x96mm	72x72mm	96x96mm	72x72mm
Display	3 1/2 Digit, Red LED Display		3 1/2 Digit, Red LED Display	
Accuracy	Class 1.0 & Class 0.5		Class 1.0 & Class 0.5	
Auxiliary Supply	AC 110V, 220V(50/60Hz), 24VDC		AC110V, 220V(50/60Hz), 24VDC	
Standard	IEC51		IEC51	
Range	20A or Ratio of CT is random setting, RS485 port is selectable		440V or Ratio of PT is random setting, RS485 port is selectable	
Consumption	<1.8VA		<1.8VA	
Signal Consumption	<0.3VA		<0.3VA	
Protection	IP20		IP20	
Operation temperature	-10°C to +60°C		-10°C to +60°C	
Test voltage	2kV		2kV	



HCD194F-9X4



HCD194IVHZ-9K4



HCD194F-7X1

A, V, Hz Meter

	Three Display with 3 Parameters, Single Phase AC Ammeter, Voltmeter, Voltmeter & Frequency Meter	
Model	HCD194F-7X4	HCD194F-9X4
Size	72x72mm	96x96mm
Display	3 1/2 Digit, Red LED Display	
Accuracy	Class 0.5	
Auxiliary Supply	AC110V, 220V (50/60Hz),24VDC	
Standard	IEC51	
Range	600V or PT Operated -/110V, 20A or CT Operated -/5A or -/1A Frequency 30-999.9 Hz	
Consumption	<1.8VA	
Signal Consumption	<0.3VA	
Protection	IP20	
Operation temperature	-10°C to +60°C	
Test voltage	2kV	

	Three Display with 3 Parameters, Single Phase AC Ammeter, Voltmeter, Voltmeter & Frequency Meter	
Model	HCD194IVHZ-7K4	HCD194IVHZ-9K4
Size	72x72mm	96x96mm
Display	3 1/2 Digit, Red LED Display	
Accuracy	Class 0.5	
Auxiliary Supply	AC110V, 220V (50/60Hz),24VDC	
Standard	IEC51	
Range	440V, 20A or Ratio of CT&PT is random setting, RS485 port is selectable	
Consumption	<1.8VA	
Signal Consumption	<0.3VA	
Protection	IP20	
Operation temperature	-10°C to +60°C	
Test voltage	2kV	

Digital frequency meter

Model	HCD194F-4X1	HCD194F-5X1	HCD194F-7X1	HCD194F-9X1
Size	48x48mm	96x48mm	72x72mm	96x96mm
Display	4 Digit, Red LED Display			
Accuracy	Class 0.1			
Auxiliary Supply	AC110V, 220V (50/60Hz),24VDC			
Standard	IEC51			
Range	up to 600V, 0-999.9Hz			
Consumption	<1.8VA			
Signal Consumption	<0.3VA			
Protection	IP20			
Operation temperature	-10°C to +60°C			
Test voltage	2kV			



HCD194P-9X1



HCD194P-9K1



HCD194H-9X1

Digital power meters

	1Phase, 1Wire & 3Phase, 3Wire & 3 Phase, 4 Wire, 3 Element type KW, MW Meters		
Model	HCD194P1-5X1 HCD194P-5X1 HCD194Q-5X1	HCD194P1-7X1 HCD194P-7X1 HCD194Q-7X1	HCD194P1-9X1 HCD194P-9X1 HCD194Q-9X1
Size	96x48mm	72x72mm	96x96mm
Display	4 Digit, Red LED Display		
Accuracy	Class 0.5		
Auxiliary Supply	AC110V, 220V (50/60Hz), 24VDC		
Standard	IEC51		
Range	440V or PT Operated -/110V, Current CT Operated -/5A or -/1A		
Consumption	<1.8VA		
Signal Consumption	<0.3VA		
Protection	IP20		
Operation temperature	-10°C to +60°C		
Test voltage	2kV		

Programmable digital power meters

	1Phase, 1Wire & 3Phase, 3Wire & 3 Phase, 4 Wire, 3 Element type KW, MW Meters		
Model	HCD194P1-5K1 HCD194P-5K1 HCD194Q-5K1	HCD194P1-7K1 HCD194P-7K1 HCD194Q-7K1	HCD194P1-9K1 HCD194P-9K1 HCD194Q-9K1
Size	96x48mm	72x72mm	96x96mm
Display	4 Digit, Red LED Display		
Accuracy	Class 0.5		
Auxiliary Supply	AC110V, 220V (50/60Hz), 24VDC		
Standard	IEC51		
Range	440V or PT Operated -/110V, Current CT Operated -/5A or -/1A		
Consumption	<1.8VA		
Signal Consumption	<0.3VA		
Protection	IP20		
Operation temperature	-10°C to +60°C		
Test voltage	2kV		

Note: display ratio can be setted at will, with 4-20mA analog output or RS485 port

Digital power factor meters

Model	HCD194H-5X1	HCD194H-7X1	HCD194H-9X1
Size	96x48mm	72x72mm	96x96mm
Display	4 Digit, Red LED Display		
Accuracy	Class 0.5		
Auxiliary Supply	AC110V, 220V (50/60Hz), 24VDC		
Standard	IEC51		
Range	440V or PT Operated -/110V, Current CT Operated -/5A or -/1A		
Consumption	<1.8VA		
Signal Consumption	<0.3VA		
Protection	IP20		
Operation temperature	-10°C to +60°C		
Test voltage	2kV		



HCD194U-TX1



HCD194F-TX1

Din Rail Digital Panel Meters

	Digital AC/DC Ammeters	Digital AC/DC Voltmeters
Model	HCD194I-TX1 HCD195I-TX1	HCD194U-TX1 HCD195U-TX1
Size	85x42mm	85x42mm
Display	3 1/2 Digit, Red LED Display	3 1/2 Digit, Red LED Display
Accuracy	Class 1.0 & Class 0.5	Class 1.0 & Class 0.5
Auxiliary Supply	110V, 220V(50/60Hz),24VDC	AC 110V,220 (50/60Hz),24VDC
Standard	IEC51	IEC51
Range	For AC meter, CT operated, secondary 5A or 1A for DC meters ,Shunt(75mV) operated	500V or PT Operated-/110V
Consumption	<1.8VA	<1.8VA
Signal Consumption	<0.3VA	<0.3VA
Protection	IP20	IP20
Operation temperature	-10°C to +60°C	-10°C to +60°C
Test voltage	2kV	2kV

Din Rail Digital Frequency Meters

	Digital Frequency Meters
Model	HCD194F-TX1
Size	85x42mm
Display	3 1/2 Digit, Red LED Display
Accuracy	Class 1.0 & Class 0.5
Auxiliary Supply	110V, 220V(50/60Hz),24VDC
Standard	IEC51
Range	30.0-999.9HZ
Consumption	<1.8VA
Signal Consumption	<0.3VA
Protection	IP20
Operation temperature	-10°C to +60°C
Test voltage	2kV

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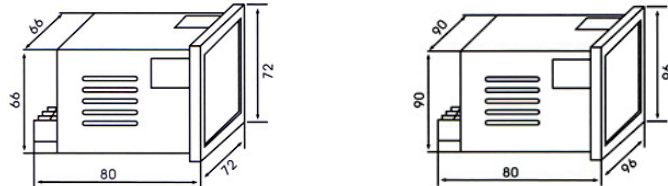


HCD194E1-7S4

Single-phase Multifunction Electric Power Monitoring Meter

	1P1L(single phase single wire)	
Model	HCD194E1-7S4	HCD194E1-9S4
Size	72x72mm	96x96mm
Measuring Parameters	Single phase volt, current, power, energy, power factor, frequency	Single phase volt, current, power, energy, power factor, frequency
Display	3-Row-4-Digit, Red LED Display	
Accuracy	Class 0.5	
Auxiliary Supply	AC110V, 220V (50/60Hz),24VDC	
Standard	IEC51	
Range	CT & PT is random setting, with RS485 communication port	
Consumption	<1.8VA	
Signal Consumption	<0.3VA	
Protection	IP20	
Operation temperature	-10°C to +60°C	
Test voltage	2kV	

Dimension



Digital Panel Meter



EN 9610

EN 9620

EN 9630

Multifunction Electric Power Monitoring Meter

General instruction of function

Multifunctional electric energy monitor meter is designed on the base of the advanced technology from the same imported products and according to the power apparatus operation and the computer intelligent monitor requirement.

This product is an integrative electric energy monitor meter systemed from current meter, voltmeter, wattmeter and electric meter, RS485 communication interface connects the meter with the computer network of monitor center, It's a high performance & automatic meter which is applied to industrial automation and modern power supply and distribution system,

This meter is specially used for electric energy parameter collect of 50/60 Hz power supply system. It can measure & display three phase voltage, three phase current, active power, reactive power, power factor, active energy (accumulating), reactive energy (accumulating) and frequency.

Main technical standards

Model	3P3L(three phase three wire) or 3P4L (three phase four wire)		
	EN9610	EN9620	EN9630
Measuring parameters	3-phase current, active energy & reactive energy	3-phase volt, current, active & reactive power, power factor, frequency, active & reactive energy	3-phase volt, current
Signal input			
Current	rated input current AC:1A, 5A		
Voltage	0.5 %		
Allowed over range	instantaneous	AC110V, 220V (50/60Hz)	
	continuous	1.2 times	
Serial communication	RS484 serial interface, Modbus protocol, RTU format, communication baud rate 4800,9600 available		
Measurement range and precision			
Current	0-5A 0.5%		
Voltage	0-450V 0.5%		
Active power	0~9999.999999 MW 0.5%		
Eactive power	0~9999.999999 Mvar 0.5%		
Power factor	0~1.000 0.5%		
Frequency:	45-60Hz ±0.1Hz		
Active energy (electrical degree accumulating and display)	0~9999.999999 kWh 0.5%		
Reactive energy (electrical degree accumulating and display)	0~9999.999999 kWh 0.5%		
Anti-jamming performance (magnetic compatibility)			
Fast instantaneous impulse train	GB/T17626.4 -1998 III grade		
Static discharge	GB/T17626.2-1998 III grade		
Voltage temporal lower, stop and changes	GB/TD626.11-1999 III grade		
Surge impact	GB/T17626.5-1999 III grade		
Insulating strength	IEC 6025-52 KVrms-1min		
Environment endurance			
Operating IEC 60068-1 &2	0°C~+55°C		
Stocking IEC 60068-1&2	-25°C~+70°C		
Damp heat IEC 60068-1-3	93%RH 40°C		
Application	non corrosive gas and metal powder, altitude <3000m		