

Industrial Control Instruments



Group



CHINT Group was established in July, 1984, with eight major professional companies under its jurisdiction, mainly covering new energy, transmission and distribution equipment, low-voltage electrical appliances, instrument & meter, automation, building appliance, high-end equipment, automotive electrical equipment, investment and finance and other industries. Currently, it has provided safe, reliable and stable industrial electrical equipment as well as energy management systemic solutions for one hundred and six countries and regions worldwide, with sales in China ranked the first place for consecutively ten years. With more than thirty thousand employees worldwide, it insists on the principle of "Create values for customers, seek development for employees, and assume responsibility for the society", to meet higher demands which keep up with times from the world, based on the constant technological innovation.

Rooted in China, Served in the Global World

3 Global Development Centers: Prague, Los Angeles and Shanghai

6 International Marketing Areas: Asia- Pacific, Europe, South America, North America and China

7 Manufacturing Bases: Wenzhou, Hangzhou, Shanghai, Xianyang, Jiuquan, Cairo, Frankfurt



Instrument&Meter



To be one of the core industries of CHINT Group, Zhejiang Chint Instrument & Meter Co., Ltd. was established in 1998, being a national high-tech enterprise with a collection of scientific research, production and sales and nationally leading professional supplier for energy management, power consumption management, power monitoring, electrical safety, temperature measurement and control systemic solutions and equipment, with the registered capital of eighty-one million Yuan, output value of more than fifty million Yuan in 2016 and currently more than two hundred employees.

The main products of the company consist of a full range of digital panel meter, din-rail mounted meter, on-line power quality monitoring instrument, full range of temperature and humidity control instrument, power monitoring and management system, energy management system as well as temperature and humidity monitoring management system.

The company has a skilled and experienced R&D team and 12% of the annual revenue will be used for technological innovation and R & D investment, which has established joint R & D relationship with the domestic main industrial design institutions, scientific research institutions, etc. It has product performance laboratories with relatively high level of technology and complete function, to conduct full performance test validation for the newly developed products.

The company provides highly efficient and convenient products and technical services for power, new energy, petrochemical, rail transportation, communications, manufacturing, construction, and other industries through global marketing network. All kinds of products are widely applied into a large number of domestic key projects including National Grid, China Southern Power Grid, China General Nuclear Power, CSR electromechanical, China Telecom, etc. to be exported to more than seventy countries and regions such as America, Brazil, Britain, etc. obtaining recognition from the global users based on the advanced technology, reliable quality and qualified services.

No limitation for development and no limitation for innovation. The company is committed to be a leading supplier for energy measurement & control equipment, systems and solutions!



1. Single/Three Phase Electronic Energy Meter (DIN-Rail)

D_SU666 Series Single/Three Phase Electronic Energy Meter (DIN-Rail)Pa	ge-01
DDSU666 Series Single Phase Electronic Energy Meter (DIN-Rail)	ge-02
DTSU666 Series Three Phase Four Wire Electronic Energy Meter (DIN-Rail)	ige-03
DSSU666 Series Three Phase Three Wire Electronic Energy Meter (DIN-Rail)Pa	age-04
2. Online Power Quality Monitoring Device	
IQE Series Online Power Quality Monitoring DevicePa	ge-05
3. Digital Panel Meter	
P Series Digital Panel Meter	ige-07
PA/PZ666–□ Series Single Phase Digital Ammeter/VoltmeterPa	age-09
PA/PZ666–□S Series Three Phase Digital Ammeter/Voltmeter	ge-10
PD666–□S4 Series Three Phase Digital Multi-functional MeterPa	ge-11
PD666-□S3 Series Three Phase Digital LCD Display Multi-functional MeterPa	ge-12
PA/PZ7777−□ Series Single Phase Digital Ammeter/VoltmeterPa	ige-13
PA/PZ7777−□S Series Three Phase Digital Ammeter/VoltmeterPa	age-14
PD7777−□ Series Single Phase Digital Multi-functional MeterPa	ige-15
PD7777–□S4 Series Three Phase Digital Multi-functional MeterPa	ıge-16
PD7777-□S3 Series Three Phase Digital LCD Display Multi-functional MeterPa	ıge-17
PD7777–□H Series Three Phase Digital Harmonic Multi-functional MeterPa	ge-18
PS/PQ7777-□ Series Digital Active/Reactive Power MeterPa	ıge-19
PH7777-□ Series Digital Power Factor MeterPa	ige-20
PP7777-□ Series Digital Frequency Meter	age-21

4.DC Multi-loop Digital Multi-functional Meter

IDE Series DC Multi-loop Digital Multi-functional Meter
5.Temperature & Humidity Control Instrument
T Series Electronic Temperature Indicating Regulator
XMT Improved Series Digital Temperature Indicating Regulator
XMT-4000 Series Digital Temperature Indicating Regulator
XMT-5000 Series Digital Indicating Controller
XMT-8000 Series Intelligent Industrial Regulator
Sensors for Temperature Controllers

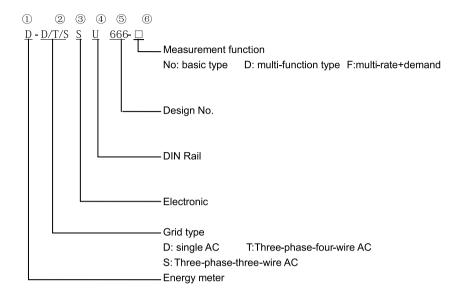


Summary:

D□SU666 series electronic energy meter is designed for power monitoring and energy measurement such as power system, communication industry, construction industry, etc. to be a new generation of programmable intelligent instrument, integrated with measurement and communication function, mainly used for real-time measurement and display for the electrical parameters such as voltage, current, active power, reactive power, frequency, power factor, energy in the electrical circuit, etc. It can realize networked through RS485 communication interface and external device. Adopting the standard DIN-rail mount type of DIN35mm with structural modular design, it is characterized with small volume, easyinstallation & networking, etc. widely applied into the internal energy assessment and monitoring for industrial and mining enterprises, hotels, schools and large public buildings.

1. Model composition and the representative meanings:

The model is composed of five parts, when ordering, Part ①~Part ⑤are required, and others can be determined according to their needs.



2. Main technical performance and parameters:

Technical parameters	Index			
	AC withstand voltage	Between > 40V and <40V connecting terminals can stand		
		2kV/5mA/1min AC withstand voltage		
		Between > 40V and <40V connecting terminals can		
	Pulse voltage	stand		
Safety		±4kV 1.2/50µs pulse voltage(10 times/polarity)		
	Insulation resistance	The input, output terminal of the case>100MΩ		
	Outage data hold time	=10 years		
	Noise immunity of	GB/T 17626.2-2006 class 4(contact discharge 8kV,		
	electrostatic discharge	air discharge 15kV)		
	Noise immunity of RF fields	GB/T 17626.3-2006 class 3(10V/m)		
	EFT immunity	GB/T 17626.4-2008 class 4(4kV/5kHz)		
	Surge immunity	GB/T 17626.5-2008 class 4(4kV)		
	Conduction disturbance			
	rejection of radio frequency	GB/T 17626.6-2008 class 3(150kHz-80MHz, 10		
Electromagnetic	field induction			
compatibility	Noise immunity of decay wave	GB/T17626.12-1998 class 3(common mode 2.5kV, differential mode 1kV)		
	Radio interference	differential friode TKV)		
	suppression	GB 9254-2008 class B		
	Specified operating	10°C . 145°C (2VE grada indeer use)		
	temperature range	-10°C~+45°C(3K5grade, indoor use)		
	Ultimate operating	-25°C∼+55°C(3K6grade, indoor use)		
	temperature range	-23 C 133 C (Skograde, illuool use)		
	Ultimate temperature range	-40°C~+70°C(3K8Hgrade, indoor use)		
Work environment	for storage and transportation	40 0 170 C(onoriginals, indoor use)		
	Relative humidity	Annual average<75%RH, no dew, no corrosive gas places		
	Atmosphere	86kPa~106kPa		

3. External and installation size

Model	modulus	External size (Length× width× height)
DDSU666 series	2	36×85×66
DDSU666-E series		
DDSU666-D series	4	76×89×74
DDSU666-F series	4	70^09^74
D T/S SU666 series		
D T/S SU666-D series	7	126×89×66
D T/S SU666-F series	1	120^09^00



2. Specification and model selection:

Product function			Мо	del	
		DDSU666	DDSU666-E	DDSU666-D	DDSU666-F
Voltage input	Direct input		0.8Un	-1.2Un	
Current input	Direct input	5(60)A		5(80)A	
Current input	Input via CT			1.5(6)A	
Voltage, current, power, frequency, power factor		NO YES		ES	
	Active energy	YES			
	Bidirectional	NO YES		=e	
energy	measurement			-5	
	multi-rate(clock)		NO		YES
Others	Demand	NO Y		YES	
	Power pulse		YE	ES	
	IR	NO YE		YES	
Communication	RS485	YES			
Display mo	Display mode		Single line LCD, 7 bit		bit
Dimension L×W×H(mm) 36×85×66		2 modulus 76×89×74 4 modulus		ulus	

3. Main technical performance and parameters

Technical parameters	Index					
parameters		Wiring mode		Single phase		
		Voltage				
				AC 220V		
		Specified	0.011- 4.411-			
		working voltage	0.9Un~1.1Un	n; the extensional wo 0.8Un~1.2Un	ork voltage range:	
		range		0.8Un~1.2Un		
	voltage	Consumption of				
		the voltage		=5VA/1W		
		circuit				
		Resistance		>500kΩ		
		Rated value	In	nput via CT/PT: AC1.	.5(6)A	
		- tatou raido		ct input: AC5(60)A/A	, ,	
		Overload	•		e of application is 0.5s	
Input signal		Current	Direct input: insta		application: half cycle	
				of the rated freque	ncy	
	0 1	Consumption of				
	Current	the current	=2VA			
		circuit Resistance		<20mΩ		
			(50/60±5%)Hz			
	Frequency	Input range ery capacity	=1200mAh			
Clock		class(daily error)	-1200mAT <0.5s/d(23℃)			
	Display	class(daily error)	Segment LCD			
	Diopidy	Voltage Cla	ss 0.5: Current	Class 0.5: Power	r factor Class 1:	
	Measurement	Ü	ass 0.5; Active power Class 1; Reactive power Class 1;			
	parameters and		Active ene	*	,	
	grade			,		
		Multi-rate energy	Support multi-rate	e measurement of p	passive, negative total	
		Max. demand	Support Max. d	lemand record of pa	ssive, negative total	
		record	active power, d	lemand interval and	slip time can be set	
		Pulse constant	AC200V	AC1.5(6)A	6400imp/kWh	
	Energy	Puise constant	AC220V AC	C5(60)A/AC5(80)A	800imp/kWh	
	Lifelgy		Provide 1 set(active energy) optical signal and optocoupler			
Output		Pulse signal	isolated open collector electrical signal pulse output, pulse			
Output		output		length:80ms±16n	ns	
			Support or DI	L/T645-2007 commu	unication protocol,	
		RS485	customizable MODBUS-RTU communication protocol, the			
		communication	communication baud rate 1200bps,			
	Communication		2400bps,4800bps,9600bps can be set, assumed to be			
			2400bps			

$Note: 1. \ The \ meter \ can \ only \ be \ the \ same \ as \ its \ corresponding \ technical \ performance \ and \ parameters;$

DDSU666 series

single phase electronic energy meter(DIN Rail)



1. Main functions and characteristics

- ◆ DIN35mm standard DIN-Rail mount, with segment LCD display;
- Measuring function: it is characterized with measurement for voltage, current, frequency, active power, power factor and active energy.
- Communication function: RS485 communication interface, supporting DL/T645-2007 protocol, customizable for MODBUS-RTU protocol
- ◆ Multi-rate function: it supports four rates including top, peak, flat and valley rate.

 $^{2. \} The \ items \ remarked \ ^* \ is \ the \ optional \ items, \ which \ shall \ be \ specified \ by \ the \ customers \ while \ ordering.$



DTSU666 series

three phase four wire electronic energy meter (DIN Rail)



1. Main functions and characteristics

- ◆DIN35mm standard DIN-Rail mount, with seven modular and segment LCD display;
- Measuring function: it is characterized with measurement for voltage, current, frequency, active power, power factor, active energy and negative energy of the three phase four wire circuit.
- Communication function: RS485 communication interface, supporting DL/T645-2007 protocol, and customizable for MODBUS-RTU protocol
- Multi-rate function: it supports four rates including top, peak, flat and valley rate.

2. Specification and type selection:

Product function			Model		
		DTSU666	DTSU666-D	DTSU666-F	
Voltage input	Direct input		AC 3×220/380V		
Current input	Direct input		5(80)A		
	Via CT/PT		1.5(6)A		
Voltage, current	, power, reactive	NO	YES		
power, frequenc	cy, power factor				
Active energy Reactive energy			YES		
		YES			
Energy	Bidirectional	NO YES			
	measurement				
	Multi-rate(clock)	NO		YES	
Others	Demand	1	NO	YES	
	Power impulse		YES		
	output				
	IR		NO	YES	
Communication					
	RS485		YES		
Display mode	Two lines 7 segment LCD				
Dimension	L×W×H(mm)	126×89×66 7 modulus			

Note: RS485 communication is assumed to be DL/T645-2007 protocol, customizable Modbus-RTU protocol

3. Main technical performance and parameters:

Technical	lada.					
parameters	Index					
		Wiring mode		Three phase four wire		
		Voltage spe	ecification	AC 3×220V/380V		
	voltage	Specified work	voltage range	0.9Un~1.1Un; the extensional work		
			11	voltage range: 0.8Un~1.2Un		
		Consumption of th		≤5VA/1W(each phase)		
		Resistance		>500kΩ		
		Rated v	/alue	Via PT/CT input AC1.5(6)A Direct input AC 5(80)A		
Input signal				Via PT/CT input: instant:201max, time of		
				application: 0.5S		
	Current	Current or	verload	Direct input: instant:301max, time of		
				application: half cycle of the rated		
				frequency		
		Consumption of th	e current circuit	≤2VA		
		Resista	ance	<20mΩ(each phase)		
	Frequency	Input ra	ange	(50±5%)Hz		
	Display			gment LCD		
	Measurement	Voltage Class 0.5	oltage Class 0.5; Current Class 0.5; Power factor Class 1; Frequency Class			
	parameters & grade	0.5;				
		Active power: 1.5(6)A Class 0.5/5(80)A Class 1; Reactive power: Class 1;				
	<u> </u>	Active energy: 1.5(6)A Class 0.5/5(80)A Class 1; Reactive energy: Class 2;				
		Multi-rate energy	Support positive/negative total active/reactive multi-rate measurement function			
		Four-quadrant	Support reactive four quadrant energy measurement			
		energy	function			
		Max. demand	Support pos	sitive/negative total active/reactive max.		
Output	Energy	record	demand reco	rd, demand cycle and slip time can be set		
		Pulse constant	AC3×200V/380V AC1.5(6)A 6400imp/kWh(imp/kv			
		1 diee constant		30V AC5(80)A 400imp/kWh(imp/kvarh)		
		Pulse signal	Provide 1 set(active/reactive energy) optical signal and			
		output	optocoupler isolated open collector electrical signal pulse			
				utput, pulse length:80ms±16ms		
				BUS-RTU or DL/T645-2007 communication		
		RS485	, ,	vitchable), the communication baud rate		
		communication	1200bps, 2400i	bps,4800bps,9600bps can be set, assumed to be 9600bps		
	Communication			·		
		IR		BUS-RTU or DL/T645-2007 communication		
		communication protocol(switch		able), Infrared wavelength: 900nm~1000nm		
		(*)	communication baud rate:1200bps communication angle: ≥±15° communication distance:≥4m			
			-113	Communication distance. 24m		

Note: 1.The meter can only be the same as its corresponding technical performance and parameters.

2. The items remarked * is the optional items, which shall be specified by the customers while ordering.



2. Specification and type selection:

Product function			Model	
Product	Tunction	DSSU666	DSSU666-F	
Voltage input	Direct input		AC 3×380V	
Cummont inner	Direct input		5(80)A	
Current input	Via CT/PT		1.5(6)A	
Voltage, current	, power, r eactive	NO	YES	
power, frequen	cy, power factor	NO	1 E3	
	Active energy		YES	•
	Reactive	YES		
	ener gy			
Energy	Bidirectional	NO Y		
Lifergy	measurement	NO	YES	
	Multi-rate(clock)		NO	YES
	Demand		NO	YES
Others	Power impulse		YES	
	output		TES	
	IR	NO Y		YES
Communication	RS485	YES		
Display mode	,	Two lines 7 segment LCD		
Dimension	L×W×H(mm)	126×89×66 7 modulus		

 $Note: RS485\ communication\ is\ assumed\ to\ be\ DL/T645-2007\ protocol,\ customizable\ for\ Modbus-RTU\ protocol.$

3. Main technical performance and parameters:

Technical	Index				
parameters		Wiring mode		There also a three wine	
				Three phase three wire AC 3×380V	
		Voltage specification Specified working voltage		0.9Un~1.1Un; the extensional work voltage	
	voltage	,	onage	range: 0.8Un~1.2Un	
	voitage	range Consumption of the v	oltago	•	
		circuit	rollage	≤5VA/1W(each phase)	
		Resistance		>500kΩ(each phase)	
		Rated value		Via PT/CT input AC1.5(6)A	
Input signal		Nateu value		Direct input AC 5(80)A	
				Input via PT/CT: instant:201max, time of	
		Cumont availag	ام	application: 0.5S	
	Current	Current overloa	u	Direct input: instant:301max, time of application:	
				half cycle of the rated frequency	
		Consumption of the o	current	20\/A/hh)	
		circuit		≤2VA(each phase)	
		Resistance		<20mΩ(each phase)	
	Frequency	Input range		(50±5%)Hz	
		attery capacity		≥1200mAh	
Clock		cy of clock(day error)		≤0.5s/d(23°C)	
	Display			Segment LCD	
	Бізріцу	Voltage: Class 0.5; Current: Class 0.5; Power factor: Class 1; Frequency: Class			
	Measurement	0.5:			
	parameters &	Active power: 1.5(6)A Class 0.5/5(80)A Class 1; Reactive power :Class 1;			
	grade	Active energy: 1.5(6)A Class 0.5/5(80)A Class 1; Reactive energy: Class			
		Active energy. 1.5(c		ort positive/negative total active/reactive multi-rate	
		Multi-rate energy	Suppl	measurement function	
		Four-guadrant	Sun	port reactive four quadrant energy measurement	
		energy	Cup	function	
		Max. demand	Sur	pport positive/negative total active/reactive max.	
	Energy	record		and record, demand cycle and slip time can be set	
	Lifelgy	record		3×380V AC1.5(6)A 6400imp/kWh(imp/kvarh)	
		Pulse constant			
Output			AC3×380V AC5(80)A 400imp/kWh(imp/kvarh)		
				de 1 set(active/reactive energy) optical signal and	
		Pulse signal output	optocc	oupler isolated open collector electrical signal pulse	
		,	output, pulse length:80ms±16ms		
				Support MODBUS-RTU or DL/T645-2007	
		RS485	comm	unication protocol(switchable), the communication	
		communication		rate 1200bps, 2400bps,4800bps,9600bps can be	
				set, assumed to be 9600bps	
	Communication			Support MODBUS-RTU or DL/T645-2007	
				• •	
		IR		communication protocol(switchable), Infrared	
		communication(*)	wav	elength: 900nm~1000nm communication baud	
	Communication			rate:1200bps communication angle: ≥±15°	
				communication distance:≥4m	

Note: 1. The meter can only be the same as its corresponding technical performance and parameters.

2. The items remarked * is the optional items, which shall be specified by the customers while ordering.

DSSU666 series

three phase four wire electronic energy meter (DIN Rail)



1. Main functions and characteristics

- DIN35mm Standard DIN-Rail, seven modulus with segment LCD display
- Measurement function: Characterized with measurement for three phase three wire voltage, current, frequency, active power, power factor, active energy and reactive energy
- communication function: RS485 communication interface, supporting DL/T645-2007 protocol, customizable for MODBUS-RTU protocol
- Multi-rate function: it supports four rates including top, peak, flat, valley rate.



IQE series online power quality monitoring instrument adopts high-speed DSP+ARM dual processing framework, with the advanced digital sampling technology and data analysis method, designed and produced based on the requirement for power quality monitoring index from the power system. The products are mainly applied into power quality monitoring of the power system and public connection for large-sized factories and enterprises, including power plants, transformer substation, wind power plant, photovoltaic power plants, petroleum, coal, steel, metallurgy, chemical, etc. with voltage class of 380V to 220kV, providing the objective and scientific monitoring data for the analysis and solutions towards power quality monitoring which has drawn the common attention from the electric enterprises and users.

1. Main functions and characteristics:

- ◆ Adopting dot-matrix colored LCD with self-designed GUI, it is easy for operation
- Measurement for the electrical parameters including voltage, current, active/reactive power, power factor, frequency, etc. in the power network.
- Measurement for the positive/negative active energy and four-quadrant reactive energy.
- ◆ Power quality monitoring:

Measurement the voltage deviation and frequency deviation in the power network

Measurement for the degree of unbalancedness of the voltage/current and positive/negative/zero-sequence component

Measurement for the total harmonic distortion factor of the voltage/current and 2nd~63rd each component harmonic wave ratio

Measurement for the Max.62 times of voltage/current harmonic wave ratio among 1st ~1023rd with 5Hz interval Measurement for short-time flicker and long-time flicker

Monitoring voltage swell, sag and interruption, meanwhile recording the periodical effective value curve with the monitoring resolution to be half cycle

Statistics recording feature:

Records for DI/DO/programmable events with each for 4000 records

Records for the recent 30-day voltage/current effective value curves, recent 30-day voltage/current THD curve& user-defined 10-time harmonic wave ratio curve

Records for the recent one-year total active, total reactive, total apparent power load curve

Records for the recent five hundred effective value curves on voltage swell and sag, and remarks for 4000pcs on voltage interruption

Records for the recent four thousand fault recording data

Statistics data for the percent and previous twelve-month voltage/frequency qualification ratio, total operation time and over-limit time.

Input and output function of the module

Support four-way optocoupler passive dry contact input

Provide one-way active energy and 1-way reactive energy pulse output.

Support four-way relay alarm output, relay contact capacity: AC250V/2A.

Support U disk power quality storage format transferred power, harmonic data, record of SOE events, fault recording, history curve.

• communication function:

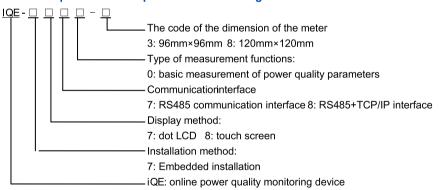
Support Modbus/RTU and baud rate can be set to 1200-19200.

Support Modbus/TCP.

Support IEC61850 protocol.

Support SNTP protocol to carry out network time.

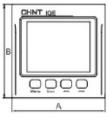
2. Model composition and representative meanings:

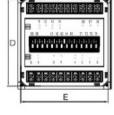


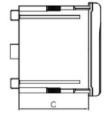
3. External and installation size:

(Unit: mm)

			1-	
Model	Panel size	Shell size	Cutting size	weight
	(A×B)	(D×E×C)	(width× height)	
iQE77703	96×96	90×90×72	92×92	About 500g
iQE78808	120×120	112×112×114	114×114	About 800g







Front view

Back view

Side view



4. Specification and type selection:

Technical	Index					
parameters		Wiring mode				
		Rated value(U	n)	3 phase 3 wire, 3 phase 4 wire AC100V, AC220V, AC380V		
	Voltage	Specified operating voltage range		0.0Un~2.0Un		
	, omage	Consumption		≤0.5VA(each phase)		
Input signal		Resistance		>500kΩ(each phase)		
		Rated value		AC1A, AC5A		
		Current overloa	ad	Continuous:1.2 times, instant: 10times/1s		
	Current	Consumption	l.	≤0.75VA(each phase)		
		Resistance		<20mΩ(each phase)		
Power supply		Voltage range		AC/DC85V~264V		
		Consumption		<5W/15VA ≥200mAh		
Clock		Battery capacity Accuracy(daily error)		≥200ffAf1 ≤0.5s/d (23°C±2°C)		
		/ toodraby (daily offor)		Dot colored LCD		
		Display		Can in place display real-time data, wave and correlated		
				measuring signals		
				Voltage, current, active power, reactive power , power		
	Rea	al-time measurement function	on	factor, frequency: Class 0.5		
				GB/T 22264-2008		
	En	ergy measurement function		Active energy: Class 0.5; reactive energy: Class 2		
		Voltage deviation		20%Un~120%Un ±0.5% 45Hz~65Hz ±0.01Hz		
		Three phase degree of	Voltage	1%~5% ±0.2%		
		unbalancedness	current	±1%		
		Flickering	-	0.2-10Pst ±5%		
	Power			Uh≥3%UN 5%Ih		
	quality		voltage	Uh<3%UN 0.15%UN		
	measuring range and	Harmonic wave	Current	lh≥10%lN ±5%lh		
Output	deviation			Ih<10%IN 0.5%IN		
Jupan			Note: UN is	the nominal voltage, IN is the nominal current, Uh is harmonic		
			voltage, Ih is harmonic current			
		Voltage swell	Voltage amplitude ±0.2%Un Continuous time ±1cycle			
		Voltage dip				
		Short interruption Pulse constant		10000imp/kWh, 10000imp/kvarh		
		i dise constant	Provide 2 s	sets(active/reactive energy) of optical signal and optocoupler		
	Energy	Pulse signal output	isolated open collector electrical signal pulse output, pulse			
			length:80ms±20ms			
			Support MODBUS-RTU or DL/T645-2007 communication			
	Communicat	RS485 communication	protocol(switchable), the communication baud rate 1200bps, 2400bps,4800bps,9600bps, 19200bps can be set, assumed to be			
	ion function					
		Switch input	9	9600bps upport four-way passive dry contact input detection		
	Auxiliary	Owitoninput		ur-way relay-state output, relay contact capacity:AC250V/2A,		
	functions	Switch output		DC30V/2A(-3 with 2-way)		
	AC :-	vithstand voltage	Betv	veen > 40V and <40V connecting terminals can stand		
	AC V	wiiistand voitage	AC2kV/5mA/1min AC withstand voltage			
Safety	F	Pulse voltage	Betv	veen > 40V and <40V connecting terminals can stand		
	In a cit	1-4:		±4kV 1.2/50µs pulse voltage(10 times/polarity)		
		lation resistance ge data hold time		The input, output terminal of the case>100MΩ ≥10 years		
		nunity of electrostatic		·		
	1,0.30 1111	discharge	GB/T 1762	6.2-2006 class 4(contact discharge 8kV, air discharge 15kV)		
	Noise immunity of RF fields		GB/T 17626.3-2006 class 3(10V/m)			
Electromo	EFT immunity			GB/T 17626.4-2008 class 4(4kV/5kHz)		
Electromagnetic compatibility	Sı	urge immunity		GB/T 17626.5-2008 class 4(4kV)		
paubinty	Conduction disturbance rejection of			GB/T 17626.6-2008 class 3(150kHz-80MHz, 10V)		
	radio frequency field induction			· · · · · · · · · · · · · · · · · · ·		
	Noise immunity of decay wave		GB/117626.	12-1998 class 3(common mode 2.5kV, differential mode 1kV)		
	Radio interference suppression Specified operating temperature range			GB 9254-2008 class B -10°C~+45°C(3K5grade, indoor use)		
		rating temperature range		-25°C~+55°C(3K6grade, indoor use)		
Work		perature range for storage				
environment		d transportation	-40°C~+70°C(3K8Hgrade, indoor use)			
	Re	lative humidity	Annı	Annual average<75%RH, no dew, no corrosive gas places		
	Atmosphere					





1. Type of the instrument:

This series of instruments can be divided into the following categories according to different functions.

- Ordinary digital display instrument (only display one electrical quantity or three electric quantity with the same category, for example: three phase voltage)
- Intelligent digital instrument (add 485 communication, upper/lower limit alarm, analog quantity output and other functions based on the display instrument).
- Multi-functional digital electrical power meter (add function to display all the electrical quantity or electrical quantity
 with different categories based on the display and programmable instrument.)

2. Main functions and characteristics:

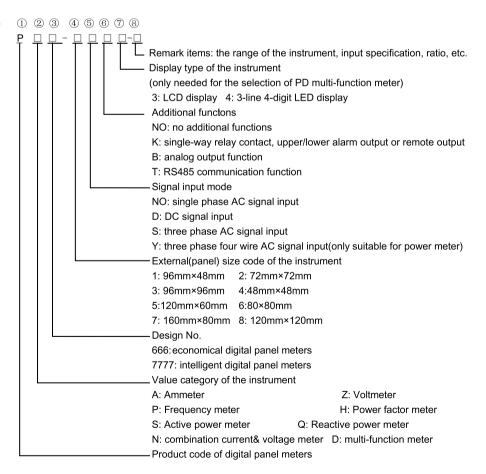
- It can conduct real-time measurement for all kinds of electrical parameters in the electrical circuit, measuring single parameter as well as multiple parameters at the same time according to their needs.
- Characterized with complete variety of specifications and types with different outline size and several series of products.
- All the instruments are designed according to the standard dimensions with strong compatibility, convenient maintenance and replacement.
- ♦ It adopts new card-type installation, which makes installation easy, convenient and firm.
- ◆ SMT production technique with software production calibration
- With network design scheme, it can be easily docked with remote monitoring systems for all kinds of power network.

3. Type composition and representative meanings:

The type of the instrument is composed of eight parts, Part 1 to Part 4 and Part 8 are required, others can be determined according to their needs.

Summary:

P series digital panel meters are mainly suitable for measurement on electrical cabinet and all kinds of electrical devices or variety of electrical parameters including AC/DC voltage, AC/DC current, frequency, single/three phase active power, single/three phase power factor, etc. in the indicating circuit, with characteristics such as high accurate measurement, clear reading, convenience, No-angle error, installation from any angle, anti-vibration, external magnetic field interference, and are the ideal replacement for the original pointer meter.





4. Instruction of the specification and type selection:

Model					Mea	surer	ment	displa	ay								Coc	e of t	he ex	terna	l size	es			
wodei	Α	В	С	D	Е	F	G	Н	ı	J	K	L	1	2	3	4	5	6	7	8	М	N	0	Р	Q
PA666 - 🗆		•											\checkmark	\checkmark	\checkmark	\sim				\checkmark	@				
PZ666 - 🗆	•												\checkmark			\sim		V		\checkmark	@				
PN666 - □	•	•												V				\sim		\sim	@				
PA666 -□S		•												\checkmark	\checkmark	\sim		V		\checkmark	@				
PZ666 - □S	•													\checkmark	\checkmark	\sim				\checkmark	@				
PN666-□S	•	•													\checkmark			V		\checkmark	@				
PD666-□S3	•	•	•	•	•		•		•	•					\checkmark	\sim				\sim	•				•
PD666-□S4	•	•	•	•	•		•		•	•					\checkmark	\sim		V		\checkmark	•				•
PA7777-□		•											\checkmark	\checkmark	\checkmark	\sim	\sim		\checkmark	\checkmark	@	@	@		
PZ7777- □	•												\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	~	/	@	@	@		
PA7777-□S		•												\checkmark	\checkmark	\sim		\checkmark		/					
PZ7777-□S	•													\checkmark	\checkmark	\sim		V		\sim	@	@	@		
PP7777-□			•										\checkmark	\sim	\sim	\sim	\checkmark	\sim	~	/	@	@	@		
PS7777-□				•									\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	~	/	@	@	@		
PQ7777-□					•								\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	~	/	@	@	@		
PH7777 -□							•	•					\checkmark	V	\checkmark		\checkmark		\sim	\checkmark	@	@	@		
PD7777-□S3	•	•	•	•	•		•		•	•				V	\checkmark					\checkmark	•	@	@	•	•
PD7777-□S4	•	•	•	•	•		•		•	•					\sim						•	@	@	•	•
PD7777-□H	•	•	•	•	•	•	•		•	•	•	•			\checkmark					/	•	@	@	•	•

A: voltage, B: current, C: frequency, D: active power, E: reactive power, F: apparent power, G: power factor, H:phase, I:active energy, J: reactive energy, K: voltage harmonic wave, L: current harmonic wave, M: T Rs485 communication, N: K switch quantity output, O: B analog quantity output, P: switch quantity input, Q: power pulse

• means the intrinsic functions of the instrument

 $\sqrt{}$ means the corresponding size code of the instrument, one code of the external size should be filled in " \Box " when selection.

@ means extendible corresponding optional functions of this series of instruments.

5. Main technical performance and parameters:

technical parameters			Index		
		Input & auxiliary power supply	> 2kV 50Hz/1min		
		Input & output	> 2kV 50Hz/1min		
Safety	Withstand voltage	Input & auxiliary power supply	> 2kV 50Hz/1min		
		Insulation resistance	Auxiliary power supply, inputoutput of the case $>100 M\Omega$		
		Heat resistance and flam retardant	Terminal block: 96©, case: 65©, time of operation: 30s		
	Noise immunit	y of electrostatic discharge	GB/T 17626.2-2006 class 4(contact discharge 8kV, air discharge 15kV)		
	Noise im	munity of RF fields	GB/T 17626.3-2006 class 3(10V/m)		
	EF	T immunity	GB/T 17626.4-2008 class 4(4kV/5kHz)		
Electromagnetic	Su	rge immunity	GB/T 17626.5-2008 class 4(4kV)		
compatibility		sturbance rejection of radio ncy field induction	GB/T 17626.6-2008 class 3(150kHz-80MHz, 10V)		
	Noise imr	nunity of decay wave	GB/T17626.12-1998 class 3(common mode 2.5kV, differential mode 1kV)		
	Radio inte	erference suppression	GB 92542008 class B		
	Tem	perature range	Operating:-25°C~+55°C, storage:-25°C~+50°C		
Work environment	Rel	ative humidity	Annual average<75%RH, no dew, no corrosive gas places		
	A	\tmosphere	86kPa~106kPa		

6. External, installation and cutting size:

Unit: mm

			Onit: mm	
Model	Panel size(width×height)	Size of the case(width× height)	Length of the case(C)	Cutting size(width×height)
P-1	96×48	90×44	100	92×45
P-2	72×72	66×66	80	68×68
P-3	96×96	90×90	80	92×92
P-4	48×48	44×44	100	45×45
P-5	120×60	112×55	80	116×56
P-6	80×80	75×75	80	76×76
P-7	160?80	150×75	100	152×76
P-8	120?120	112×112	80 (PD7777-8S is 114)	114×114





Summary:

PA/PZ
series digital Ammeter/Voltmeter is the new generation of programmable instrument, mainly applied into real-time measurement and indication for the current and voltage in the electrical circuit, suitable for the occasions with relatively high requirements for the power quality and power safety as well as that with automation.

1. Main functions and characteristics:

- Real-time measurement and indication for the current and voltage value of the power circuit.
- ◆ The display range of the instrument is programmable.

2. Model specification and selection description:

(Unit: mm)

Model		Measurem	ent display		T(communica	External size	Display
Wiodei	AC	AC	DC DC	DC	tion)	External size	mode
	voltage	current	voltage	current	RS485		mode
	voltage	Current	voitage	Current	interface		
PA666-1					@	96×48	
PA666-2					@	72×72	
PA666-3		•			@	96×96	
PA666-4		•			@	48×48	
PA666-6		•			@	80×80	
PA666-8		•			@	120×120	
PZ666-1	•				@	96×48	
PZ666-2	•				@	72×72	
PZ666-3	•				@	96×96	
PZ666-4	•				@	48×48	
PZ666-6	•				@	80×80	
PZ666-8	•				@	120×120	
PA666-1D				•	@	96×48	
PA666-2D				•	@	72×72	
PA666-3D				•	@	96×96	
PA666-4D				•	@	48×48	LED
PA666-6D				•	@	80×80	display
PA666-8D				•	@	120×120	
PZ666-1D			•		@	96×48	
PZ666-2D			•		@	72×72	
PZ666-3D			•		@	96×96	
PZ666-4D			•		@	48×48	
PZ666-6D			•		@	80×80	
PZ666-8D			•		@	120×120	

Note: •means the intrinsic functions of the instrument

3. Main technical performance and parameters:

Technical	index		
parameters Accuracy class	Class 0.5		
•	Voltage	Rated value	AC/DC (0~660)V, the other special specifications can be custom-made
		Overload	Continuous: 1.2 times, instant: 10 times/5s
Input		Resistance	≤1Ω
	Current	Rated value	AC/DC (0~5)A, the other special specifications can be custom-made
		Overload	Continuous: 1.2 times, instant: 10 times/5s
		Resistance	≤1Ω
	Display mode		Single line 4 digit LED display, the max. voltage
			resolution is 0.1V, the max. current resolution is 0.001A
	Polarity indication	n	Complete the positive and negative value switch
Output			through polarity light(only for DC meter)
		Mode	RS-485
	Communication	Protocol	MODBUS-RTU
		Baud rate	1200bps, 2400bps, 4800bps, 9600bps, 19200bps,
			assumed to be 9600bps
Working power	Range		AC220V±20%
supply	Consumption		≤5VA

Note: this series of instruments can be especially customized according to special specifications: the input terminal inputs DC standard signals, such as 4~20mA, 0~10V, 0~75mV, etc. The head of the meter can display the parameters including the corresponding voltage, current, frequency, power, power factor, pressure, flow, etc. of the primary loop of the sensor or transmitter; the items marked × are optional, which shall be specified by the customers when ordering.

[@] means extendible corresponding optional functions of this series of instruments.



- ◆ Real-time measurement and indication for the phase current, phase voltage, wire voltage value of the electrical
- ◆ The current/ voltage ratio of the instrument is programmable.

2. Model specification and selection description:

	Measurem	ent display	T(communication)		5
Model	3-phase voltage	3-phase current	RS485 interface	External size	Display mode
PA666-2S		•	@	72×72	
PA666-3S		•	@	96×96	
PA666-4S		•		48×48	
PA666-6S		•	@	80×80	
PA666-8S		•	@	120×120	
PZ666-2S	•		@	72×72	
PZ666-3S	•		@	96×96	LED display
PZ666-4S	•			48×48	LED display
PZ666-6S	•		@	80×80	
PZ666-8S	•		@	120×120	

Note: • means the intrinsic functions of the instrument

@ means extendible corresponding optional functions of this series of instruments.

3. Main technical performance and parameters:

Technical parameters			index					
Accuracy class	Class 0.5							
		Rated value	AC100V, 450V					
		Overload	Continuous: 1.2 times, instant: 2 times/5s					
	Voltage	Consumption	≤1VA(each phase)					
		Resistance	100V(about 120K), 450V(about 600K)					
	Rated value		AC1A, 5A					
Input		Overload	Continuous: 1.2 times, instant: 10 times/5s					
input	Current	Consumption	≤0.5VA(each phase)					
		Resistance	<20mΩ(each phase)					
	Measuring rang	g of the frequency	45Hz-65Hz					
			3 phase 4 digit LED display, the max. Voltage resolution					
	Displa	ay mode	is 0.1V, the max. Current resolution is 0.001A; the unit					
			switches automatically, the decimals shift automatically					
	Dienla	ay range	Voltmeter AC0~999.9kV					
	ызріє	iy range	Ammeter AC0~99.99kA					
Output		Mode	RS-485					
Output	Communication	Protocol	MODBUS-RTU					
	(*)	Baud rate	1200bps, 2400bps, 4800bps, 9600bps, 19200bps,					
	()	Daud Tale	assumed to be 9600bps					
Working power	Ra	ange	AC220V±20%					
supply	Cons	umption	≤5VA					

Note: the items marked * are optional, which shall be specified by the customers when ordering.



Summary:

PA/PZ666
S series three phase digital

Ammeter/Voltmeter is the new generation of
programmable instrument, mainly applied into
real-time measurement and indication for the
phase voltage, wire voltage and phase current in
the three phase electrical circuit.





Summary:

PD666-DS4 series three phase digital multifunctional meter is designed for the demand of power monitoring and electric energy measurement including power system, communication industry and construction industry, mainly applied into real-time measurement and indication for the electrical parameters such as three phase voltage, three phase current, active power, negative power, frequency, power factor and energy in the electrical circuit, realizing networked through RS485 communication interface and external device for remote data transmission, which is widely used into variety of intelligent power distribution system for power monitoring and industrial automation, etc.

1. Main functions and characteristics:

- It can measure three phase current, three phase voltage, active power, reactive power, power factor, frequency, positive/negative active energy and four-quadrant reactive energy.
- With the standard RS-485 communication interface, it adopts the standard ModBus-RTU communication protocol
 and the baud rate can be set.
- Parameters such as current/voltage ratio, type of network, communication address of the meter, communication baud rate, etc. are programmable.

2. Model specification and selection description:

									(unit	mm)		
		M	easureme	nt display			Ene	ergy		RS485		
Model	3-phase voltage	3-phas e current	Active power	Reactive power	Powe r factor	Freq uenc y	Active energy	Reactiv e energy	Power pulse	communi	External size	Display mode
PD666-2S4	•	•	•	•	•	•	•	•	•	•	72×72	0.11
PD666-3S4	•	•	•	•	•	•	•	•	•	•	96×96	3 line 4
PD666-6S4	•	•	•	•	•	•	•	•	•	•	80×80	digit LED display
PD666-8S4	•	•	•	•	•	•	•	•	•	•	120×120	uispiay

Note: •means the intrinsic functions of the instrument.

3. Main technical performance and parameters:

Technical parameters			index				
Connection mode		Three phase three	wire or three phase four wire is optional				
		Rated value	AC100V, 220V, 380V, 450V				
		Overload	Continuous: 1.2 times, instant: 2 times/5s				
	Voltage	Consumption	≤2VA(each phase)				
		Resistance	>500kΩ				
		Rated value	AC1A, 5A				
Input		Overload	Continuous: 1.2 times, instant: 10 times/5s				
iliput	Current	Consumption	≤1VA(each phase)				
		Resistance	<20mΩ(each phase)				
	Measuring rang	of the frequency	45Hz-65Hz				
			LED display				
	,	y mode g accuracy Energy	Voltage Class 0.5 Resolution 0.1V Current Class 0.5 Resolution 0.001A Active power Class 0.5 Resolution 1W Reactive power Class 1.0 Resolution 1var Power factor Class 0.5 Resolution 0.001 Frequency Class 0.5 Resolution 0.01Hz Active energy Class 0.5 Resolution 0.01kWh Reactive energy Class 2.0 Resolution 0.01kvarh The unit can switch automatically, the decimals shift automatically Support positive/negative measurement active energy,				
Output		measurement	four-quadrant measurement reactive energy.				
		Pulse constant	Active power: 10000imp/kWh, Reactive power: 10000imp/kvarh				
	Electric energy	Pulse signal output	Provide 2 sets(active/reactive energy) of optical signal and optocoupler isolated open collector electrical signal pulse output, pulse length:80ms±16ms				
		Mode	RS-485				
		Protocol	MODBUS-RTU				
	Communication	Baud rate	1200bps, 2400bps, 4800bps, 9600bps, 19200bps, assumed to be 9600bps				
Working power	Ra	nge	AC/DC85V~264V				



- It can measure three phase current, three phase voltage, active power, reactive power, power factor, frequency, positive/negative active energy and four-quadrant reactive energy.
- With the standard RS-485 communication interface, it adopts the standard ModBus-RTU communication protocol and the baud rate can be set.
- Parameters such as current/voltage ratio, type of network, communication address of the meter, communication baud rate, etc. are programmable.

2. Model specification and selection description

									(unit:	: mm)		
		M	easureme	nt display			Ene	ergy		RS485		
Model	3-phase voltage	3-phas e current	Active power	Reactive power	Powe r factor	Freq uenc y	Active energy	Reactiv e energy	Power pulse	communi	External size	Display mode
PD666-2S4	•	•	•	•	•	•	•	•	•	•	72×72	
PD666-3S4	•	•	•	•	•	•	•	•	•	•	96×96	LCD
PD666-6S4	•	•	•	•	•	•	•	•	•	•	80×80	display
PD666-8S4	•	•	•	•	•	•	•	•	•	•	120×120	

Note: •means the intrinsic functions of the instrument.

3. Main technical performance and parameters:

Technical parameters			index					
Connection mode		Three phase three wire or three phase four wire is optional						
		Rated value	AC100V, 220V, 380V, 450V					
		Overload	Continuous: 1.2 times, instant: 2 times/5s					
	Voltage	Consumption	≤2VA(each phase)					
		Resistance	>500kΩ					
		Rated value	AC1A, 5A					
		Overload	Continuous: 1.2 times, instant: 10 times/5s					
Input	Current	Consumption	≤1VA(each phase)					
		Resistance	<20mΩ(each phase)					
	Measuring rang	of the frequency	45Hz-65Hz					
			LED display					
			Voltage Class 0.5 Resolution 0.1V					
			Current Class 0.5 Resolution 0.001A					
			Active power Class 0.5 Resolution 1W					
			Reactive power Class 1.0 Resolution 1var					
	·	y mode	Power factor Class 0.5 Resolution 0.001					
	Measuring	g accuracy	Frequency Class 0.5 Resolution 0.01Hz					
			Active energy Class 0.5 Resolution 0.01kWh					
			Reactive energy Class 2.0 Resolution 0.01kvarh					
			The unit can switch automatically, the decimals shi					
			automatically					
		Energy	Support positive/negative measurement active energy					
Output		measurement	four-quadrant measurement reactive energy.					
			Active power: 10000imp/kWh, Reactive power:					
		Pulse constant	10000imp/kvarh					
	Electric energy		Provide 2 sets(active/reactive energy) of optical signa					
		Pulse signal	and optocoupler isolated open collector electrical signa					
		output	pulse output, pulse length:80ms±16ms					
		Mode	RS-485					
		Protocol	MODBUS-RTU					
	Communication		1200bps, 2400bps, 4800bps, 9600bps, 19200bps,					
		Baud rate	assumed to be 9600bps					
Vorking power	Ra	nge	AC/DC85V~264V					
supply		ımption	AC/DC85V~264V ≤15VA					



Summary:

PD666-DS3 series three phase digital LCD display multi-function meter is designed for the demand of power monitoring and electric energy measurement including power system, communication industry and construction industry, mainly applied into real-time measurement and indication for the electrical parameters such as three phase voltage, three phase current, active power, negative power, frequency, power factor and energy in the electrical circuit, realizing networked through RS485 communication interface and external device for remote data transmission, which is widely used into variety of intelligent power distribution system for power monitoring and industrial automation, etc.monitoring and industrial automation, etc.



Summary:

PA/PZ7777-□ series digital Ammeter/Voltmeter is the new generation of programmable intelligent instrument, integrating measurement, alarm, transmission, communication, mainly applied into real-time measurement and indication for the current and voltage in the electrical circuit. It can output the limit-value alarming output for the measurement value according to the settings, and conduct transmitting output for the measured electrical quantity data, realizing networked through RS485 communication interface and host computers.

1. Main functions and characteristics:

- ◆ Real-time measurement and indication for the current/voltage value in the circuit.
- ◆ Extendible for one-way analog quantity output function, with various transmitting specifications optional and extendible for switch quantity output function of relay. It can realize upper/lower-limit alarm output, extendible for RS-485 communication interface, adopting standard ModBus-RTU communication protocol and the baud rate can be set.
- The instrument is characterized with parameters such as range, upper/lower-limit alarm value, alarm return difference, communication address of the meter, baud rate, transmitting output mode, etc. are programmable.

2. Model specification and selection description:

Model		Measuren	nent display		T(communication)	External size	Display
	AC	AC	DC	DC	RS485 interface		mode
	voltage	current	voltage	current			
PA7777-1		•			@	96×48	
PA7777-2		•			@	72×72	
PA7777-3		•			@	96×96	
PA7777-4		•			@	48×48	
PA7777-5		•			@	120×60	
PA7777-6		•			@	80×80	
PA7777-7		•			@	160×80	
PA7777-8		•			@	120×120	
PZ7777-1	•				@	96×48	
PZ7777-2	•				@	72×72	
PZ7777-3	•				@	96×96	
PZ7777-4	•				@	48×48	
PZ7777-5	•				@	120×60	
PZ7777-6	•				@	80×80	
PZ7777-7	•				@	160×80	
PZ7777-8	•				@	120×120	LED
PA7777-1D				•	@	96×48	display
PA7777-2D				•	@	72×72	
PA7777-3D				•	@	96×96	
PA7777-4D				•	@	48×48	
PA7777-5D				•	@	120×60	
PA7777-6D				•	@	80×80	
PA7777-7D				•	@	160×80	
PA7777-8D				•	@	120×120	
PZ7777-1D			•		@	96×48	
PZ7777-2D			•		@	72×72	
PZ7777-3D			•		@	96×96	
PZ7777-4D			•		@	48×48	
PZ7777-5D			•		@	120×60	
PZ7777-6D			•		@	80×80	
PZ7777-7D			•		@	160×80	
PZ7777-8D			•		@	120×120	

Note: the size code with 1,3,7,8 can set 3 types of function modules at the same time, the size code with 2,5,6 can only choose any 2 types of function modules, the size code with 4 can only choose any 1 type of function modules.

3. Main technical performance and parameters:

Technical parameters			index							
Accuracy class			Class 0.5							
		Rated value	AC100V,600V optional, DC75mV, 660V, the other special specifications can be custom-made							
		Overload	Continuous: 1.2 times, instant: 2 times/5s							
	Voltage	consumption	≤2VA							
		Resistance	>500kΩ							
Input		Rated value	AC1A,5A optional, DC4~20mA, 5A optional, the other special specifications can be custom-made							
		Overload	Continuous: 1.2 times, instant: 10 times/5s							
	Current	Consumption	≤1VA							
		Resistance	<20mΩ							
	Measurin	g range of the frequency	45Hz~65Hz							
		Display mode	Single line 4 digit LED display, the max. voltage resolution is 0.1V, the max. current resolution is 0.001A							
	P	Polarity indication	Complete the positive and negative value switch through polarity light(only for DC meter)							
	_	Mode	RS-485							
Output	Commu	Protocol	MODBUS-RTU							
	nication	Baud rate	1200bps, 2400bps, 4800bps, 9600bps, 19200bps, assumed to be 9600bps							
	Swit	ch quantity output(*)	Upper/limit alarm with the same relay output, contact capacityAC250V/5A, DC30V/2A, can work in the remote mode							
	Anal	og quantity output(*)	DC0mA~10mA, DC0mA~20mA, DC4mA~20mA, Class 0.5, customizable voltage output							
Working power		Range	AC/DC85V~264V							
supply		Consumption	≤5VA							

Note: 1. This series of meters can be custom-made according to special specifications: input terminal inputs DC standard signals such as 4~20mA, 0~10V, 0~75mV and so on, the head of the meter can display the corresponding parameters including voltage, current,

frequency, power, power factor, pressure, flow, etc. in one circuit for the sensor or transmitter 2. The items marked *are optional, which shall be specified by the customers when ordering



- ◆ Real-time measurement and indication for the phase current, phase voltage and wire voltage value in the electrical circuit
- Extendible for one-way analog output function, with optional transmitting specifications of 4-20mA, 0-20mA and 0-10mA
- ◆ Extendible for relay switch quantity output function, to realize the upper and lower limit alarming output.
- ♦ Extendible for RS-485 communication interface, adopting the standard ModBus-RTU communication protocol and the baud rate can be set.
- ◆ The instrument is characterized with parameters such as range, upper/lower-limit alarm value, alarm return difference, communication address of the meter, baud rate, transmitting output mode, etc. are programmable.

2. Model specification and selection description:

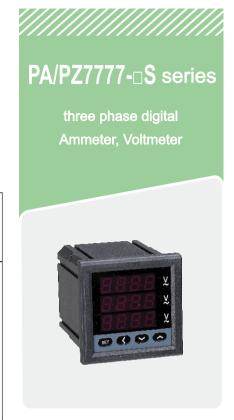
Model	Measurem	ent display	T(communication)	К	B analog	External	Display
	3-phase	3-phase	RS485 interface	Switch	quantity	size	mode
	voltage	current		quantity	output		
				output			
PA7777-2S		•	@	@	@	72×72	
PA7777-3S		•	@	@	@	96×96	
PA7777-4S		•				48×48	
PA7777-6S		•	@	@	@	80×80	
PA7777-8S		•	@	@	@	120×120	LED
PZ7777-2S	•		@	@	@	72×72	display
PZ7777-3S	•		@	@	@	96×96	
PZ7777-4S	•					48×48	
PZ7777-6S	•		@	@	@	80×80	
PZ7777-8S	•		@	@	@	120×120	

Note: •means the intrinsic functions of the instrument

@ means extendible corresponding optional functions of this series of instruments.

3. Main technical performance and parameters:

Technical parameters			index				
Accuracy class			Class 0.5				
		Rated value	AC100V, 450V				
) / = t = = =	Overload	Continuous: 1.2 times, instant: 2 times/5s				
	Voltage	Consumption	≤1VA(each phase)				
		Resistance	100V(about 120K), 450V(about 600K)				
Input		Rated value	AC1A, 5A				
	Cumant	Overload	Continuous: 1.2 times, instant: 10 times/5s				
	Current	Consumption	≤0.5VA(each phase)				
		Resistance	<20mΩ(each phase)				
	Measuring rang	of the frequency	45Hz-65Hz				
			3 phase 4 digit LED display, the max. Voltage resolution				
	Display	mode	is 0.1V, the max. Current resolution is 0.001A; the unit				
			switches automatically, the decimals shift automatically.				
	Dianloy	rango	Voltmeter AC0~999.9kV(PZ7777-4S is 0~9999V)				
	Display	range	Ammeter AC0~99.99kA(PA7777-4S is 0~9999)				
			Upper/lower-limit alarm with the same relay output,				
Outrout	Switch quant	ity output(*)	contact capacityAC250V/5A, DC30V/2A, can work in				
Output			the remote mode				
	Analog quant	tity output(*)	DC0mA~10mA, DC0mA~20mA, DC4mA~20mA, Class				
	Analog quani	iity output(*)	0.5, output overload≤500Ω,customizable voltage output				
		Mode	RS-485				
	Communication	Protocol	MODBUS-RTU				
	(*)	Baud rate	1200bps, 2400bps, 4800bps, 9600bps, 19200bps,				
		baud rate	assumed to be 9600bps				
Working power	Ran	ige	AC/DC 85~264V				
supply	Consur	nption	<5VA				



Summary:

PA/PZ7777-□S series three phase digital Ammeter/Voltmeter is the new generation of programmable intelligent instrument, mainly applied into real-time measurement and indication for the phase voltage, wire voltage and phase current in the three phase electrical circuit, realizing remote data for the measured electrical quantity data through RS485 interface or analog quantity transmission interface.



Summary:

As a new generation of programmable intelligent instrument, PD7777- series single phase digital multi-functional meter is designed for the demand of power monitoring and electric energy measurement including power system, communication industry and construction industry, integrated with measurement and communication, mainly applied into real-time measurement and indication for the electrical parameters such as voltage, current, active power, negative power, frequency, power factor, four-quadrant energy, realizing networked through RS485 communication interface and external device, which is widely used in variety of intelligent power distribution system for power monitoring, industrial automation and switching cabinet etc. with standard communication interface convenient for networking with the host computer to realize remote data transmission.

1. Main functions and characteristics:

- It can measure single phase AC current, voltage, active/reactive power, power factor, frequency, positive/negative active energy and reactive energy.
- Extendible for two-way switch quantity input and two-way switch quantity output to realize "remote communication" and "remote control" for the local or remote switching signals.
- Parameters such as the current/voltage ratio, indication mode for electrical quantity, the of the meter, electric quantity display mode, communication address of the meter, baud rate, transmitting output object, transmitting output range, alarming object, alarming upper/lower limit, etc. can be randomly programmed and set.

2. Model specification and selection description:

			Measur	ement displa	ау		Er	ergy					
Model	voltage	current	Active power	Reactive power	Power factor	Frequency	Active energy	Reactive energy	Power pulse	RS485 communication	Switch quantity input	External size	Display mode
PD7777-13T	•	•	•	•	•	•	•	•	•	•	•	96×48	
PD7777-23T	•	•	•	•	•	•	•	•	•	•	•	72×72	LCD
PD7777-33T	•	•	•	•	•	•	•	•	•	•	•	96×96	display

Note: •means the intrinsic functions of the instrument

Analog quantity output function, switch quantity output function (alarm) can be added according to the customers' needs.

3. Main technical performance and parameters:

Technical			index					
parameters			ilidex					
Connection mode			Single phase					
mode		Rated value	AC220V, AC450V, the other special specifications can					
			be custom-made.					
	Voltage	Overload	Continuous: 1.2 times, instant: 2 times/5s					
		Consumption	≤2VA					
Input		Resistance	>500kΩ					
put		Rated value	AC5A					
	Current	Overload	Continuous: 1.2 times, instant: 10 times/5s					
	Guirent	Consumption	≤1VA					
		Resistance	<20mΩ					
	Measuring rang	of the frequency	45Hz-65Hz					
			LCD display					
			Voltage Class 0.5 Resolution 0.1V					
			Current Class 0.5 Resolution 0.001A					
			Active power Class 0.5 Resolution 1W					
	Disales		Reactive power Class 1.0 Resolution 1var					
	Display		Power factor Class 0.5 Resolution 0.001					
	Measuring	accuracy	Frequency Class 0.5 Resolution 0.01Hz					
			Active energy Class 0.5 Resolution 0.01kWh					
			Reactive energy Class 2.0 Resolution 0.01kvarh					
			The unit can switch automatically, the decimals shift					
			automatically					
		Energy	Support positive/negative measurement active energy,					
		measurement	four-quadrant measurement reactive energy.					
Output		Pulse	Active power: 10000imp/kWh, Reactive power:					
2	Electric energy	constant	10000imp/kvarh					
			Provide 1 set(active/reactive energy) of optical signal					
		Pulse signal	and optocoupler isolated open collector electrical signal					
		output	pulse output, pulse length:80ms±16ms					
		Mode	RS-485					
		Protocol	MODBUS-RTU					
	Communication		1200bps, 2400bps, 4800bps, 9600bps, 19200bps,					
		Baud rate	assumed to be 9600bps					
			Upper/lower-limit alarm with the same relay output,					
	Switch quant	tity output(*)	contact capacity:AC250V/5A, DC30V/2A					
			Current output: DC0mA~20mA, DC4mA~20mA, Class					
	Analog quan	tity output(*)	0.5					
	Switch qua	ntity input	2-way passive dry node input mode					
Working power	Ran		AC/DC85V~264V, 50Hz/60Hz					
supply	Consur		≤15VA					
Supply	Consu	πρασιτ	=101V					

Note: 1. PD7777-23T can add 1-way switch quantity input, 1-way switch quantity output (alarm);

- 2. PD7777-13T, PD7777-33T can add 2-way switch quantity input, 2- way switch quantity output (alarm);
- 3. The items marked *are optional, which shall be specified by the customers when ordering.



- It can measure three phase current, voltage, active/reactive power, power factor, frequency, positive/negative active energy, four-quadrant reactive energy.
- With the standard RS-485 communication interface, adopting the standard ModBus-RTU communication protocol and the baud rate can be set with switch quantity input function.
- Function extension: four-way analog quantity output function; four-way switch quantity output function ("remote-communication" and "remote control" functions)
- Parameters such as the current/voltage ratio, indication mode for electrical quantity, the of the meter, electric quantity display mode, communication address of the meter, baud rate, transmitting output object, transmitting output range, alarming object, alarming upper/lower limit, etc. can be randomly programmed and set.

2. Model specification and selection description:

			Measuren	nent display	,		En	ergy							
Model	voltage	current	Active power	Reactive power	Power factor	Frequency	Active	Reactive energy	Power pulse	RS485 communication	Analog quantity output	Switch quantity output	Switch quantity input	External size	Display mode
PD7777-2S4	•	•	•	•	•	•	•	•	•	•			•	72×72	
PD7777-2SK4	٠	•	•	•	٠	•	٠	•	•	•		•	•	72×72	
PD7777-3S4	•	•	•	•	•	•	•	•	•	•			•	96×96	
PD7777-3SK4	•	•	•	•	•	•	•	•	•	•		•	•	96×96	
PD7777-3SB4	٠	•	•	•	٠	•	٠	•	•	•			•	96×96	
PD7777-6S4	•	•	•	•	٠	•	•	•	•	•	•		•	80×80	3 line 4 digit
PD7777-6SK4	•	•	•	•	•	•	•	•	•	•		•	•	80×80	LED display
PD7777-8S4	•	•	•	•	•	•	•	•	•	•			•	120×120	LLD display
PD7777-8SK4	•	•	•	•	•	•	•	•	•	•		•	•	120×120	
PD7777-8SB4	•	•	•	•	•	•	•	•	•	•	•		•	120×120	

Note: •means the intrinsic functions of the instrument

Analog quantity output function, and switch quantity output function (alarm) can be added according to the clients' needs.

3. Main technical performance and parameters:

Technical	index								
parameters									
Connection mode		Three phase three	ee wire or three phase four wire o	optional					
		Rated value	AC100V, 220V	V, 450V					
	Voltage	Overload	Continuous: 1.2 times, i	nstant: 2 times/5s					
	vollage	Consumption	≤2VA(each p	ohase)					
		Resistance	>500kΩ						
Input		Rated value	AC1A, 5	iΑ					
	Current	Overload	Continuous: 1.2 times, in	stant: 10 times/5s					
	Current	Consumption	≤1VA(each phase)						
		Resistance	<20mΩ(each	phase)					
	Measuring rang	of the frequency	45Hz-65	Hz					
			3 line 4 digit LED or	LCD display					
			Voltage Class 0.5	Resolution 0.1V					
			Current Class 0.5	Resolution 0.001A					
			Active power Class 0.5	Resolution 1W					
	District.		Reactive power Class 1.0	Resolution 1var					
	Display		Power factor Class 0.5	Resolution 0.001					
	Measuring	accuracy	Frequency Class 0.5	Resolution 0.01Hz					
			Active energy Class 0.5	Resolution 0.01kWh					
			Reactive energy Class 2.0	Resolution 0.01kvarh					
			The unit can switch automation	cally, the decimals shift					
			automatic	ally					
		Energy	Support positive/negative measurement active energy,						
		measurement	four-quadrant measureme	ent reactive energy.					
0.1.1		Pulse	Active power: 10000imp/k\	Nh, Reactive power:					
Output	Electric energy	constant	10000imp/k	varh					
		Pulse signal	Provide 2 sets(active/reactive	energy) of optical signal					
		output	and optocoupler isolated open	collector electrical signal					
		Output	pulse output, pulse len	gth:80ms±16ms					
		Mode	RS-485	5					
	Communication	Protocol	MODBUS-	RTU					
	Communication	Baud rate	1200bps, 2400bps, 4800bps	, 9600bps, 19200bps,					
		Daud Tate	assumed to be	9600bps					
	Switch quant	ity output(*)	Support 4-way relay-state	output, relay contact					
	Switch quant	aty output()	capacity:AC250V/2A, DC30V/2	2A(-2,-6 only has 2-way)					
	Analog quant	tity output(*)	Current output: DC0mA~20mA, DC0mA~20mA,						
	Analog quan	iity output()	DC4mA~20mA, Class 0.5(-2,	-6 without this function)					
	Switch qua	ntity input	4-way passive dry node input	mode(-2,-6 can only be					
	Switch qua	maty input	configured 2-way)						
Working power	Ran	ige	AC/DC85V~264V						
supply	Consur	nption	≤15VA						

Note: 1. the items marked * are optional, which shall be specified by the customers when ordering.

2. Used for wind power, PV new energy project, the voltage measuring range over 450V can be especially custom-made.



Summary:

As a new generation of programmable intelligent instrument, PD7777-DS4 series single phase digital multi-functional meter is designed for the demand of power monitoring and electric energy measurement including power system, communication industry and construction industry, integrated with measurement and communication, mainly applied into real-time measurement and indication for the electrical parameters such as voltage, current, active power, negative power, frequency, power factor, four-quadrant energy, realizing networked through RS485 communication interface and external device, which is widely used in variety of intelligent power distribution system for power monitoring, industrial automation and switching cabinet etc. with standard communication interface convenient for networking with the host computer to realize remote data transmission.





Summary:

As a new generation of programmable intelligent instrument, PD7777-DS3 series single phase digital multi-functional meter is designed for the demand of power monitoring and electric energy measurement including power system, communication industry and construction industry, integrated with measurement and communication, mainly applied into real-time measurement and indication for the electrical parameters such as voltage, current, active power, negative power, frequency, power factor, four-quadrant energy, realizing networked through RS485 communication interface and external device, which is widely used in variety of intelligent power distribution system for power monitoring, industrial automation and switching cabinet etc. with standard communication interface convenient for networking with the host computer to realize remote data transmission.

1. Main functions and characteristics:

- It can measure three phase current, voltage, active/reactive power, power factor, frequency, positive/negative active energy, four-quadrant reactive energy.
- ♦ With the standard RS-485 communication interface, adopting the standard ModBus-RTU communication protocol and the baud rate can be set with switch quantity input function.
- Function extension: Four-way analog quantity output function; four-way switch quantity output function ("remote-communication" and "remote control" functions)
- Parameters such as the current/voltage ratio, indication mode for electrical quantity, the of the meter, electric quantity display mode, communication address of the meter, baud rate, transmitting output object, transmitting output range, alarming object, alarming upper/lower limit, etc. can be randomly programmed and set.

2. Model specification and selection description:

			Measure	ment disp	lay		En	ergy							
Model	voltage	current	Active power	Reactive power	Power factor	Frequency	Active energy	Reactive energy	Power pulse	RS485 communication	Analog quantity output	Switch quantity output	Switch quantity input	External size	Display mode
PD7777-2S3	•	•	•	•	•	•	•	•	•	•			•	72×72	
PD7777-2SK3	•	•	•	•	•	•	•	•	•	•		•	•	72×72	
PD7777-3S3	•	•	•	•	•	•	•	•	•	•			•	96×96	
PD7777-3SK3	•	•	•	•	•	•	•	•	•	•		•	•	96×96	
PD7777-3SB3	•	•	•	•	•	•	•	•	•	•			•	96×96	
PD7777-6S3	•	•	•	•	•	•	•	•	•	•	•		•	80×80	
PD7777-6SK3	•	•	•	•	•	•	•	•	•	•		•	•	80×80	LCD display
PD7777-8S3	•	•	•	•	•	•	•	•	•	•			•	120×120	
PD7777-8SK3	•	•	•	•	•	•	•	•	•	•		•	•	120×120	
PD7777-8SB3	•	•	•	•	•	•	•	•	•	•	•		•	120×120	1

Note: 1. •means the intrinsic functions of the instrument;

- 2. All the meters can custom-made add "harmonic, demand, rate" functions, please choose the corresponding model with "+H" while ordering.
- 3. -2,-6 do not have analog quantity output function; -2,-6 can only be configured 2-way DI, DO function.

3. Main technical performance and parameters:

Technical		unice and para	index					
parameters								
Connection mode		Three phase three	wire or three phase four wire optional					
		Rated value	AC100V, 220V, 450V					
	Valtage	Overload	Continuous: 1.2 times, instant: 2 times/5s					
	Voltage	Consumption	≤2VA(each phase)					
		Resistance	>500kΩ					
Input		Rated value	AC1A, 5A					
	0	Overload	Continuous: 1.2 times, instant: 10 times/5s					
	Current	Consumption	≤1VA(each phase)					
		Resistance	<20mΩ(each phase)					
	Measuring rang	of the frequency	45Hz-65Hz					
		•	3 line 4 digit LED or LCD display					
			Voltage Class 0.5 Resolution 0.1V					
			Current Class 0.5 Resolution 0.001A					
			Active power Class 0.5 Resolution 1W					
	- · ·		Reactive power Class 1.0 Resolution 1var					
	·	y mode	Power factor Class 0.5 Resolution 0.001					
	Measurin	g accuracy	Frequency Class 0.5 Resolution 0.01Hz					
			Active energy Class 0.5 Resolution 0.01kWh					
			Reactive energy Class 2.0 Resolution 0.01kvarh					
			The unit can switch automatically, the decimals shift					
			automatically					
		Energy	Support positive/negative measurement active energy,					
		measurement	four-quadrant measurement reactive energy.					
		Multi-rate	Constant and the second and the seco					
		energy(*)	Support multi-rate measurement function, max. 4 rate					
		Max. demand	Support positive, negative total active/reactive max.					
	Electric energy	record(*)	demand record, demand cycle and slip time can be set					
Output		Pulse constant	Active power: 10000imp/kWh, Reactive power:					
Output		T disc constant	10000imp/kvarh					
		Pulse signal	Provide 2 sets(active/reactive energy) of optical signal					
		output	and optocoupler isolated open collector electrical signal					
			pulse output, pulse length:80ms±16ms					
		Harmonic	Uh≥3%UN 5%Uh; Uh<3%UN 0.15%UN					
	Harmonic(×)	voltage(THDu)	Ih≥10%IN ±5%Ih; Ih<10%IN 0.15%IN					
	114111151115()	Harmonic	UN is the nominal voltage, IN is the nominal current, Uh					
		current(THDi)	is the harmonic voltage, Ih is the harmonic current.					
		Mode	RS-485					
	Communication	Protocol	MODBUS-RTU					
		Baud rate	1200bps, 2400bps, 4800bps, 9600bps, 19200bps,					
			assumed to be 9600bps					
	Switch quar	ntity output(*)	Support 4-way relay-state output, relay contact					
		, /	capacity:AC250V/2A, DC30V/2A(-2,-6 only has 2-way					
	Analog gua	ntity output(*)	Current output: DC0mA~10mA, DC0mA~20mA,					
		,	DC4mA~20mA, Class 0.5(-2, -6 without this function)					
	Switch qu	antity input	4-way passive dry node input mode(-2,-6 can only be					
	Datten, s	situ of the clock	configured 2-way) ≥200mAh					
Clock(×)		city of the clock						
	Accuracy of the	clock (daily error)	≤0.5s/d(20°C)					

Note: 1. The items marked * are optional, which shall be specified by the customers when ordering.

2. Used for wind power, PV new energy project, the voltage measuring range over 450V can be especially custom-made.



- ♦ It adopts dot colorized LCD sketch display with intuitive and friendly interface.
- It can measure the electrical parameters such as current, voltage, active/reactive power, apparent power, power factor, frequency, etc. in the electrical network.
- ◆ Accurate measurement four-quadrant energy.
- power quality monitoring:

Measure the 2nd~31st harmonic content of the voltage, current, total harmonic distortion, bar graph of the display harmonic in the electrical network.

Measure the power quality parameters such as positive sequence, negative sequence, zero sequence of voltage/current, degree of unbalancedness, etc.

Online real-time displayed voltage, current waveform, observing the real-time condition of power grid, which can realize the phase sequence regulation such as voltage and current and loss of phase detection, etc.

Input/output function of the modules:

Provide one-way active energy and one-way reactive power impulse output.

 $Provide \ multi-way \ relay \ switch \ output \ function, \ which \ can \ realize \ upper \ and \ lower \ limit \ alarm \ output.$

Provide four-way switch input state indicating function, adopting passive stem node resistive signal input method.

- With the standard RS-485 communication interface, adopting the standard ModBus-RTU communication protocol and the baud rate can be set.
- ◆ Each switch quantity has 500 SOE event recording function.
- It is characterized with 500 pieces of manual and automatic fault wave recording function, continuously saving loaded curve data records for one year.

2. Model specification and selection description:

			Measurer	ment displa	ay		Energy Active Reactive				Analog	Switch	Switch		
Model	voltage	current	Active power	Reactive power	Power factor	Frequency	Active energy	Reactive energy	Power	RS485 communication	quantity	quantity output	quantity input	External size	Display mode
PD7777-3H	•	•	•	•	•	•	•	•	•	•		•	•	96×96	Color LCD
PD7777-8H	•	•	•	•	•	•	•	•	•	•	•	•	•	120×120	graphic display

Note: •means the intrinsic functions of the instrument.

3. Main technical performance and parameters:

Technical parameters		index Three phase three wire or three phase four wire optional								
Connection mode		Three phase thr	ree wire or three phase four wire optional							
		Rated value	AC100V, 220V, 380V							
			Continuous: 1.2 times, instant: 2 times/1s, adopt red font identification							
	Voltage	Overload	when out of 1.2 times of the rated value							
		Consumption	<2VA(each phase)							
		Resistance	>500kΩ							
Input		Rated value	AC1A, 5A							
			Continuous: 1.2 times, instant: 10 times/5s, adopt red font							
	Current	Overload	identification when out of 1.2 times of the rated value							
		Consumption	<1VA(each phase)							
		Resistance	<20mΩ(each phase)							
	Measuring rang	g of the frequency	45Hz-65Hz							
			3.5 inch/4.3 inch lattice LCD							
			Voltage Class 0.2 Resolution 0.1V							
			Current Class 0.2 Resolution 0.001A Active power Class 0.2 Resolution 1W Reactive power Class 0.5 Resolution 1var							
	Displa	ay mode								
	Measurir	ng accuracy	Power factor Class 0.5 Resolution 0.001							
			Frequency Class 0.2 Resolution 0.01Hz							
			Active energy Class 0.2 Resolution 0.01kWh							
			Reactive energy Class 2.0 Resolution 0.01kvarh							
			The unit can switch automatically, the decimals shift automatically							
		Energy measurement	Support positive/negative measurement active(reactive) energy							
		Pulse constant	Active power: 10000imp/kWh, Reactive power: 10000imp/kvarh							
	Electric energy		Provide 2 sets(active/reactive energy) of optical signal and							
Output		Pulse signal output	optocoupler isolated open collector electrical signal pulse output							
		Mode	RS-485							
	Communication	Protocol	MODBUS-RTU							
			1200bps, 2400bps, 4800bps, 9600bps, 19200bps, assumed to be							
		Baud rate	9600bps							
	Switch qu	uantity input	4-way passive dry node input mode							
	0	Ph to t	Support 4-way relay-state output, relay contact capacity:AC250V/2A,							
	Switch qu	antity output	DC30V/2A(-3H only has 2-way)							
	Analan a		Current output: DC0mA~10mA, DC0mA~20mA, DC4mA~20mA,							
	Analog qu	antity output	Class 0.5(-3H without this function)							
	Switch qu	uantity input	4-way passive dry node input mode							
	Har	monic	2 nd ~31 st harmonic of voltage/current							
	Calen	dar clock	Clock error: 0.5s/d (reference temperature: 23°C)							
	USB	interface	Host mode(-3H without this function)							
Working power	R	ange	AC/DC85V~264V							
supply	Cons	umption	≤15VA							



Summary:

PD7777-□H series digital harmonic multifunctional meter is mainly applied into highly accurate real-time measurement and indication such as voltage, current, active power, reactive power, apparent power, frequency, power factor, four-quadrant electric energy, voltage/current harmonic content (2nd ~31st), total harmonic content of voltage/current and degree of unbalancedness of voltage/current (including positive, negative, zero sequence) in the electrical circuit. The instrument supports switch quantity input, switch quantity output, analog quantity output, RS485 interface, USB interface and other functions.

The meter is widely applied into the relevant fields such as industrial automation control, energy management system, substation automation, distribution network automation, electric power monitoring, complete equipment, switchgear and so on, to complete the industrial automation control and communication networking.





Summary:

PS/PQ7777-□series digital active/reactive power meter is the new generation of programmable intelligent instrument, integrated with measurement, alarming, transmission and communication, mainly applied into real-time measurement and indication for the active power, reactive power in the three phase electrical circuit, conducting limited alarming output for transmission output towards electrical data according to the set measured value, realizing networking through RS485 communication interface and the host computer.

1. Main functions and characteristics:

- ◆ It can measure and display single/three phase active/reactive power value with digital direct reading method.
- ◆ Extendible for analog quantity output function, transmitting specification of 4~20mA, 0~20mA, 0~10mA which is optional.
- ◆ Extendible for switch quantity output function for the relay, realizing upper/lower-limit alarming output.
- ◆ Extendible for RS-485 communication interface, adopting the standard ModBus-RTU communication protocol and the baud rate can be set.
- Parameters including current/voltage ratio of the meter, upper/lower-limit alarm value, alarming return difference, communication address of the meter, baud rate, transmitting output mode, transmitting output range, etc. are programmable.

2. Model specification and selection description:

		Measurement display		T/	K	DI		
Model	Single phase active power	Three phase three wire active power	Three phase four wire active power	T(communication) RS485 interface	Switch quantity output	B analog quantity output	External size	Display mode
PS7777-1	•			@	@	@	96×48	
PS7777-1Y			•	@	@	@	96×48	
PS7777-1S		•		@	@	@	96×48	
PS7777-2	•			@	@	@	72×72	
PS7777-2S		•		@	@	@	72×72	
PS7777-3	•			@	@	@	96×96	
PS7777-3Y			•	@	@	@	96×96	
PS7777-3S		•		@	@	@	96×96	
PS7777-5	•			@	@	@	120×60	
PS7777-5S		•		@	@	@	120×60	
PS7777-6	•			@	@	@	80×80	
PS7777-6S		•		@	@	@	80×80	
PS7777-7	•			@	@	@	160×80	LED display
PS7777-7Y			•	@	@	@	160×80	
PS7777-7S		•		@	@	@	160×80	
PS7777-8	•			@	@	@	120×120	
PS7777-8Y			•	@	@	@	120×120	
PS7777-8S		•		@	@	@	120×120	1

Note

- 1. •means the intrinsic functions of the instrument
- 2.@ means extendible corresponding optional functions of this series of instruments.
- 3. The size code with 2, 5, 6 can only be configured with any 2 types of function modules, the size code with 1, 3, 7, 8 can be configured with any of 3 types of function modules.
- 4. All the above models of instrument can be made corresponding reactive power meter (PQ7777 series).

3. Main technical performance and parameters:

Technical parameters	index			
Wiring mode		Single phase, three	phase three wire, three phase four wire	
	Rated value		AC100V, 220V, 380V	
		Overload	Continuous: 1.2 times, instant: 2 times/1s	
	Voltage	Consumption	≤1VA(each phase)	
lanut	_	Resistance	100V(about 120K), 220V(about 400K), 380V(about 600K)	
Input		Rated value	AC1A, 5A	
	Current	Overload	Continuous: 1.2 times, instant: 10 times/5s	
	Current	Consumption	≤0.5VA (each phase)	
		Resistance	<20mΩ(each phase)	
	Measuring rang	of the frequency	45Hz-65Hz	
	Display mode Measuring accuracy		5-digit LED display, reactive power displays "-" Voltage Class 0.5 Resolution 0.1V Current Class 0.5 Resolution 0.001A Active power Class 0.5 Resolution 1W Reactive power Class 1.0 Resolution 1var The unit can switch automatically, the decimals shift automatically	
	Display range		0~9999MV(Mvar), display "" when out of the display range	
Output		Mode	RS-485	
	Communication	Protocol	MODBUS-RTU	
		Baud rate	1200bps, 2400bps, 4800bps, 9600bps, 19200bps, assumed to be 9600bps	
	Switch quantity output		Upper/lower limit alarm with the same one relay output, contact capacity:AC250V/2A, DC30V/2A	
	Analog quantity output		DC0mA~10mA, DC0mA~20mA, DC4mA~20mA, Class 0.5, output overload≤500Ω, the voltage output can be custom-made	
Working	Ra	inge	AC/DC85V~264V	
power supply	Consu	ımption	<5VA	

Note: The items marked * are optional, which shall be specified by the customers when ordering.



- ♦ It can measure and display single/three phase power factor value in the electrical circuit.
- ◆ Extendible for analog quantity output function, transmitting specification of 4~20mA, 0~20mA, 0~10mA which is optional.
- ◆ Extendible for switch quantity output function for the relay, realizing upper/lower-limit alarming output.
- ◆ Extendible for RS-485 communication interface, adopting the standard ModBus-RTU communication protocol and the baud rate can be set
- Parameters including current/voltage ratio of the meter, upper/lower-limit alarm value, alarming return difference, communication address of the meter, baud rate, transmitting output mode, transmitting output range, etc. are programmable.

2. Model specification and selection description:

Model	Measureme Single phase power factor	3 phase power factor	T(communication) RS485 interface	K Switch quantity output	B analog quantity output	External size	Display mode
PH7777-1	•		@	@	@	96×48	
PH7777-1S		•	@	(2)	@	96×48	
PH7777-2	•		@	(2)	@	72×72	
PH7777-2S		•	@	@	@	72×72	
PH7777-3	•		@	@	@	96×96	
PH7777-3S		•	@	@	@	96×96	
PH7777-5	•		@	@	@	120×60	
PH7777-5S		•	@	@	@	120×60	
PH7777-6	•		@	@	@	80×80	
PH7777-6S		•	@	@	@	80×80	LED
PH7777-7	•		@	@	@	160×80	display
PH7777-7S		•	@	@	@	160×80	uispiay
PH7777-8	•		@	(0)	@	120×120	
PH7777-8S		•	@	@	@	120×120	



- 2. @ means extendible corresponding optional functions of this series of instruments.
- 3. The size code with 2, 5, 6 can only be configured with any 2 types of function modules, the size code with 1, 3, 7, 8 can be configured with any of 3 types of function modules.

3. Main technical performance and parameters:

Technical parameters	index			
Accuracy			Class 0.5	
	Connection mode	Single phase, 3 phase 3 wire, 3 phase 4 wire		
		Rated value	AC100V±20%, 220V±20%, 380V±20%	
lanut	Voltage	Overload	Continuous: 1.2 times, instant: 2 times/1s	
Input		Consumption	<1VA	
		Rated value	AC(0~ 5)A	
	Current	Overload	Continuous: 1.2 times, instant: 10 times/5s	
		Consumption	<0.5VA	
	Display mode		4-digit LED display, capacitive(C), inductive(L) can automatically switch through the indicator light.	
	Input indication when there is no signal		Input displays the character"" when there is no signa	
	Measuring display range of the power factor		0.000C~0.500C~1.000~0.500L~0.000L	
	Phase measurement display range		0°~359.9°	
Output		Mode	RS-485	
	Communication	Protocol	MODBUS-RTU	
	Baud rate		1200bps, 2400bps, 4800bps, 9600bps, 19200bps, assumed to be 9600bps	
	Switch quantity output		Upper/lower limit alarm with the same one relay output contact capacity:AC250V/2A, DC30V/2A	
	Analog qu	antity output	DC0mA~10mA, DC0mA~20mA, DC4mA~20mA, Clas 0.5, output overload≤500Ω, the voltage output can be custom-made	
Working	Range		AC/DC85V~264V	
power supply	Const	umption	<5VA	

Note: The items marked * are optional, which shall be specified by the customers when ordering



Summary:

PH7777-□series power factor meter is mainly applied for the real-time measurement and display for power factor and phase value in the single/three phase electrical circuit, realizing remote transmission for the measured electrical quantity data through RS485 interface or analog quantity transmitting interface, characterized with high measurement accuracy, good stability, free adjustment for long period of work, parameters to be set at site, etc.



Summary:

PP7777-□ series frequency meter is mainly used to measure and display the frequency value of the voltage in a real-time manner in the single phase electrical circuit. It can far-transmit the measured voltage frequency value via RS485 interface or analog transmitting output interface. It has high accuracy, good stability, free adjustment for longwork, setting parameters on set and so on features.

1. Main functions and characteristics:

- ♦ It can measure and display the frequency value in the electrical circuit in a direct reading method.
- ◆ Extendible for analog quantity output function, transmitting specification of 4~20mA, 0~20mA, 0~10mA which is optional
- ◆ Extendible for switch quantity output function for the relay, realizing upper/lower-limit alarming output.
- ◆ Extendible for RS-485 communication interface, adopting the standard ModBus-RTU communication protocol and the baud rate can be set.
- Parameters including the upper/lower-limit alarm value, alarming return difference, communication address of the meter, baud rate, transmitting output mode, transmitting output range, etc. are programmable.

2. Model specification and selection description:

(Unit: mm)

Model	Measurement display Frequency	T(communication) RS485 interface	K Switch quantity output	B analog quantity output	External size	Display mode
PP7777-1	•	@	@	@	96×48	
PP7777-2	•	@	@	@	72×72	
PP7777-3	•	@	@	@	96×96	
PP7777-4	•	@	@	@	48×48	
PP7777-5	•	@	@	@	120×60	LED
PP7777-6	•	@	@	@	80×80	LED
PP7777-7	•	@	@	@	160×80	display
PP7777-8	•	@	@	@	120×120	

Note: 1. •means the intrinsic functions of the instrument

- 2.@ means extendible corresponding optional functions of this series of instruments.
- 3. The size code with 2, 5, 6 can only be configured with any 2 types of function modules, the size code with 1, 3, 7, 8 can be configured with any of 3 types of function modules, the size code with 4 can only be configured with any of 1 type of function module.

3. Main technical performance and parameters:

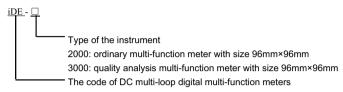
Technical parameters	Index			
Accuracy			Class 0.5	
	Connection mode		Single phase	
Input		Rated value	AC100V~AC500V	
	Voltage	Overload	Continuous: 1.2 times, instant: 2 times/1s	
		Consumption	<1VA	
	Display mode		4-digit LED display Input displays the character""when there is no signal.	
	Measuring display range of the frequency		30.00Hz~70.00Hz	
		Mode	RS-485	
	Communication	Protocol	MODBUS-RTU	
Output		Baud rate	1200bps, 2400bps, 4800bps, 9600bps, 19200bps, assumed to be 9600bps	
	Switch quantity output		Upper/lower limit alarm with the same one relay output, contact capacity:AC250V/2A, DC30V/2A	
	Analog quantity output		DC0mA~10mA, DC0mA~20mA, DC4mA~20mA, Class 0.5, output overload≤500Ω, the voltage output can be custom-made	
Working	Ra	inge	AC/DC85V~264V	
power supply	Consu	umption	<5VA	

Note: The items marked * are optional, which shall be specified by the customers when ordering.



- Measurement: one-way DC 1500V voltage, twelve-way DC current, power, current fluctuation, unbalanced degree of current, current/voltage harmonic, environmental temperature and humidity.
- ◆ Energy measurement: 12-way DC energy measurement.
- ◆ Feed: It can provide feed output of ±15V/12×240mA, and provide power supply for the external hall sensors.
- ◆ Protection functions: Current instability protection, current reverse monitoring protection, and interlock protection.
- ◆ Event record: SOE event, real-time waveform, load curve, pass rate statistics.
- ◆ Input/output: dry node input, relay output.
- ◆ Communication: ModBus-RTU

2. Model composition and representative meanings:



3. Main technical performance and parameters:

Technical parameters	index				
•	Input range		0~1500V		
	DC voltage	Input resistance	>5ΜΩ		
		Innut range	0~9999A (external shunts or hall devices are needed; th		
		Input range	range can be programmable set.		
		Shunt	Supporting output is 0~75mV		
	DC current	Hall device	Supporting output is 0~20mA, 4~20mA, 0~4V, 0~5V, etc		
		Number of	Max. 12 ways(iDE2000 is 16 ways		
Input		ways	, , ,		
		Consumption	≤1mW		
	_	rang of the ature(×)	-40°C~120°C		
	Measuring I	•	0%~100%		
	humio	λιιγ(^ <i>)</i>	Continuously normal work for 1.2 times, continue 1s for		
	Over	rload	1.5 times		
	Display	y mode	3.5 inch color liquid crystal		
			Voltage Class 0.2		
			Current Class 0.2		
	Measuring accuracy		Power Class 0.5		
			Energy Class 0.5		
			Temperature 0.2°C		
			Humidity 3%		
			Current fluctuation unbalance protection fixed value erro ±2%		
		action error	Higher harmonic containing rate fixed value error: ±2%		
	(only for	iDE3000)	Reverse current protection fixed value error: ±0.5%		
			Motion time error: ±0.1s		
		Mode	RS-485		
Output	Communication	Protocol	MODBUS-RTU		
		David sata	1200bps, 2400bps, 4800bps, 9600bps, 19200bps,		
		Baud rate	assumed to be 9600bps		
		Input(DI)	13-way passive dry node input(iDE2000 is configured 16-way)		
	Switch quantity	Output(DO)	14-way relay output, AC277V/5A or DC30V/5A(iDE2000 configured 2-way)		
			Can save and display one month voltage, current,		
			humidity, temperature, degree of unbalancedness of		
	Listan		current, max. value, min. value, average value of the		
	History	/ curve	higher harmonic, history curve of 95% max. probability		
			value(Ide2000 without degree of unbalancedness of		
			current, higher harmonic)		
			Can view on site or communication read recent switch		
	SOE		quantity input, switch quantity output each 4000 SOE		
	1		records.		
Clock	Battery	capacity	≤200mAh		

Note: The items marked * are optional, which shall be specified by the customers when ordering



Summary:

iDE series DC multi-loop digital multi-functional meter is mainly applied into measurement for multi-loop DC signals and sensor signals, which is designed for the application such as DC screen, photovoltaic plant, telecommunication base station and so on. This instrument can measure the positive/negative voltage, positive/negative current, power, energy, voltage/current harmonic, degree of unbalanced of the current in the DC system. It is characterized with temperature and humidity sensor module, through which this module can be separated with the instrument through cable connection, facilitating users to measure the applicable temperature and humidity. The instrument can not only used for local display, but also connected with the industrial control equipment and computers to form a control and automation systems.

The meter has RS-485 communication interface, adopting ModBus-RTU protocol, supporting multiway switch quantity input and switch quantity output (relay output). According to different needs, it can set the ratio, communication, switch quantity output, brightness, time and other parameters through the panel button of the instrument.





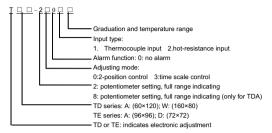
Summary:

T series electronic temperature indicating regulator has variety of advantages, such as high accuracy, easy installation, good reliability, strong anti-vibration and anti-interference ability, etc. With various of external sizes and complete control mode, it can be widely applied into temperature measurement and automation control within 0°Cto 1200°C for those industries including plastic, rubber, packing, food machinery, metallurgy, refrigeration, chemical, medical treatment, etc.

1. Main functions and characteristics:

It can realize the measurement and automation control for temperature with intuitive display and high cost performance.

2. Model specification and selection description:



3. Input specification and measuring range:

Input type	Graduation	Measuring range
Thermosouple (TC)	E	0~200°C, 0~300°C, 0~400°C
Thermocouple (TC)	К	0~400°C, 0~600°C, 0~800°C, 0~1000°C, 0~1200°C
List resistance (DTD)	Cu50	0~50°C, 0~100°C, 0~150°C
Hot resistance (RTD)	Pt100	0~200°C, 0~300°C, 0~400°C

4. Main technical performance and parameters:

Item	Type index	
Basic error	≤±2.5%F·S	
Set point error	≤±1.5%F·S	
Switch difference	≤0.75%F·S	
Cold end compensation	The error is less than 2°C within the range 0°C~40°C	
Time scale adjustment	Proportional band 4%, null cycle 30s±10s	
Output relay contact capacity	AC240V, 5A (resistance)	
Work power supply	220V±10%, 50Hz, consumption<3VA	
Work environment	Temperature 0°C~50°C, the relative humidity no more than 85%	
	non-corrosiveness places	
weight	≤0.8kg	

5. External and installation size:

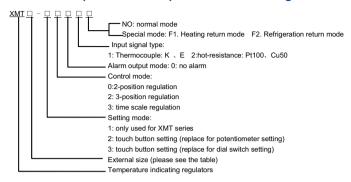
(Unit: mm)

			(Offic. Hilli)
Model	Panel size	Shell size	Cutting size
TDA series	60×120	55×114×130	56×115
TEA series	96×96	91×91×130	92×92
TDW series	160×80	150×75×130	152×76
TED series	72×72	66×66×130	68×68



- ◆ Real-time temperature measurement and control.
- ◆ Two-position, three-position and time scale control mode can be optional.
- ◆ Temperature difference control mode can be customized.
- ◆ The meter adopts button-touch operation mode.

2. Model composition and representative meanings:



3. Input specification and measuring range:

Input type Graduation		Measuring range	
	E	0~+800°C	
	К	0~+1300°C	
Thermocouple (TC)	J	0~+1000°C	
	S	0~+1750°C	
	Cu50	-50~+150°C	
Hot resistance (RTD)	Pt100	-200~+800°C	

Note: the measuring range can be freely set within the above max. measuring range.

4. Main technical performance and parameters:

Item	Type index	
Display mode	LED display	
Basic error	≤±1.0%F·S±1 word	
Resolution	1°C or 0.1°C	
Control sensitivity	≤±0.75%F·S	
Cold end compensation	The error is less than 2°C within the range 0°C~40°C	
Sampling cycle of the meter	3 times/s	
Output relay contact capacity Relay contact 220V resistance load≤3A;		
	relay contact 220V conductive load≤1A	
Work environment	Temperature 0°C~50°C, the relative humidity no more than 85%	
	non-corrosiveness places	
weight	≤0.8kg	

Note: $F \cdot S$ is the range of the meter

5. External and installation size:

(Unit: mm)

Model	Panel size	Cutting length	Cutting size
XMTA series	96×96	90	92×92
XMT series	160×80	83	151×75
XMTD series	72×72	90	68×68
XMTG series	48×48	85	45×45



Summary:

XMT improved series temperature indicating regulators are designed based on SCM, adopting SMT process and advance technology for the whole machine with stable performance, accurate temperature control, strong anti-interference ability, easy operation etc. The fully digital calibration and heat thermocouple cold end automatic compensation can meet different operating requirements. The products are widely applied in temperature measurement and control for the industries including packing machinery, food machinery, woodworking machinery, metallurgy, ceramics, etc.





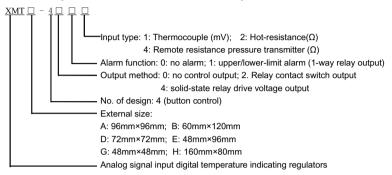
Summary:

XMT-4000 series digital temperature indicating regulators has variety of advantages, such as high accuracy, easy installation, good reliability, strong anti-vibration and anti-interference ability, etc. With various of external sizes and complete control mode, it can be widely applied into temperature measurement and automation control within -200°Cto 1800°C for those industries including plastic, rubber, packing, food machinery, metallurgy, refrigeration, chemical, medical treatment, etc.

1. Main functions and characteristics:

- ♦ High cost performance with accuracy of class one, adopting keyboard input settings.
- Support same type of sensor with graduation freely switched, full range of measurement and automatic switching for resolution
- The input adopts digital correction system, the built-in common thermocouple and hot-resistance non-linear correction table for accurate measurement.
- The potentiometer regulation and time scale regulation can be freely switched, and the positive& negative effect can be set.
- It has perfect self-checking and protection function. According to the nature of the error, it can automatically correct or timely propose and close output when errors occur.

2. Model specification and selection description:



3. Input specification and measuring range:

Input type	Graduation	Measuring range	
	K	-50~+1350°C	
	S	-50~+1750°C	
	R	-50~+1750°C	
The amount of (TO)	T	-200~+400°C	
Thermocouple (TC)	Е	-50~+800°C	
	J	-50~+1000°C	
	В	0~+1800°C	
	N	-50~+1300°C	
(DTD)	Cu50	-50~+150°C	
Hot resistance (RTD)	Pt100	-200~+850°C	
Resistance ®	30Ω~350Ω		

4. Main technical performance and parameters:

Item	Type index		
Basic error	±1.0%F·S±1 word		
Sampling period	<0.3s		
Regulation mode	≤±1.0%F·S ≤±0.5%F·S		
Switch difference	Position regulation (positive/negative effect and switch difference can be set)		
	Time scale regulation(positive/negative effect and proportional band, null		
	cycle and manual adjustment coefficient can be set)		
Cold end compensation	The error is less than 2°C within the range 0°C~40°C		
Alarm mode	Have upper-limit alarm and lower-limit alarm, can realize single way alarm		
	output, can freely choose resolute value alarm or deviation alarm		
Output specification	Relay contact switch output: 28VDC/5A, 250VAC/5A		
	Solid state relay drive voltage output: 12VDC/25mA		
Work power supply	AC198V~242V, 50Hz/60Hz, consumption<5VA		
Work environment	Temperature 0°C~50°C, the relative humidity no more than 85%		
	non-corrosiveness places		

Note: F·S is the range of the meter. The meter with B graduation thermocouple can measure within the range 0~+1800 ℃, but the basic error can not be guaranteed below 600 ℃.

5. External and installation size:

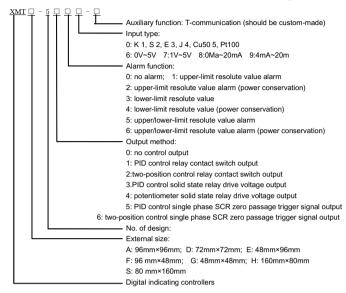
(Unit: mm)

Model	Panel size	Shell size	Cutting size
XMTA series	96×96	90×90×80	92×92
XMTE series	48×96	44×90×100	45×92
XMTB series	60×120	55×112×80	56×114
XMTG series	48×48	44×44×100	45×45
XMTD series	72×72	66×66×80	68×68
XMTH series	160×80	150×75×100	152×76



- Support ten types of free switching such as hot resistance, thermocouple, voltage, current, etc. and the measuring range and display resolution can be set.
- The input adopts digital correction system, the built-in usually use thermocouple and hot-resistance non-linear correction table for accurate measurement.

2. Model composition and representative meanings:



3. Input specification and measuring range:

Input type	Graduation	Measuring range	
	K	-50~+1350°C	
The manage (TC)	S	-50~+1750°C	
Thermocouple (TC)	Е	-50~+800°C	
	J	-50~+1000°C	
Hot resistance (RTD)	Cu50	-50~+150°C	
	Pt100	-200~+850°C	
DC voltage (U)	0V~5V		
	1V~5V	4000 . 4000	
DC current (I)	0mA~20mA	-1999~+1999 user-defined	
	4mA~20mA		

4. Main technical performance and parameters:

Item	Type index	
Basic error	±0.5%F·S±1 word	
Sampling period	<0.3s	
Control mode	Position control (positive/negative effect and switch difference can be set) PID control(positive/negative effect and proportional band, integration time, differential time, output cycle and overshoot suppression factor can be set)	
Alarm mode	Have upper-limit alarm and lower-limit alarm, can realize single way alarm output, can set power conservation to avoid alarm malfunction when the meter is power on Relay contact switch output: 30VDC/5A, 250VAC/2A SCR zero passage trigger signal output: 85V~264VAC, 50/60Hz, can trigger 5A~500A bidirectional SCR or two anti-parallel single SCR.	
Output specification	Solid state relay drive voltage output: 12VDC/25mA	
Work power supply	198V~242V, 50Hz/60Hz, consumption<5VA	

Note: F·S is the range of the meter

5. External and installation size:

(Unit: mm)

Model	Panel size	Shell size	Cutting size
XMTA series	96×96	90×90×80	92×92
XMTG series	48×48	44×44×100	45×45
XMTD series	72×72	66×66×80	68×68
XMTH series	160×80	150×75×100	152×76
XMTE series	48×96	44×90×100	45×92
XMTS series	80×160	75×150×100	76×152
XMTS series	96×48	90×44×100	92×45



Summary:

XMT-5000 series digital indicating controllers have variety of advantages, such as high accuracy, easy installation, good reliability, strong antivibration and anti-interference ability, etc. With various of external sizes and complete control mode, it can be widely applied into temperature measurement and automation control within -200°C to 1800°C for those industries including plastic, rubber, packing, food machinery, metallurgy, refrigeration, chemical, medical treatment, etc. It can realize measurement and control for the parameters such as pressure, flow, liquid position, humidity, etc. coordinated with the corresponding sensor.





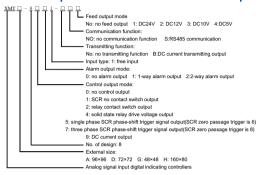
Summary:

XMT-8000 series digital indicating controllers have high accuracy, easy installation, good reliability, strong anti-vibration and anti-interference ability, etc. varies advantages. The meter has a variety of external sizes, complete control mode, flexible input and output connection, can be widely used for humidity measurement and automatic control within the range -200~2300°C in plastic, rubber, packing, food machinery, metallurgy, refrigeration, chemical, medical treatment and so on industries. It can realize the measurement and control of pressure, flow, level, humidity and so on parameters by working in with the corresponding sensors.

1. Main functions and characteristics:

- ◆ Twenty-one types of free switching such as hot resistance, thermocouple, voltage, current, resistance etc. the measuring range and display resolution can be set.
- The modular output structure, various types of control output are freely optional. All can be defined as position control or PID control.
- ◆ It can provide transmitting output signals for analog quantity, and can be freely switched among 0-10mA, 0-20mA, 4-20mA.
- ♦ It can provide RS485 serial communication, supporting the standard MODBUS_RTU communication protocol.
- It has perfect self-checking and protection function. According to the nature of the error, it can automatically correct or timely propose and close output for systemic safety when errors occur.

2. Model specification and selection description:



3. Input specification and measuring range:

Input type	Graduation	Measuring range	Input type	Graduation	Measuring range
	K	-50°C~+1350°C		0~20mV	-1999~+9999 User-defined
	S	-50°C~+1750°C		0~60mV	
	R	-50°C~+1750°C	DO	0~100mV	
Thermeequals (TC)	Т	-200°C~+400°C	DC voltage(U)	0~1V	
Thermocouple (TC)	Е	-50°C~+800°C		0~5V	
	J	-50°C~+1000°C		1~5V	
	В	0°C~+1800°C		0~10mA	Oser-defined
	N	-50°C~+1300°C	DC current(I)	0~20mA	
	WRe3-WRe25	0°C~+2300°C		4~20mA	
Hot resistance (RTD)	Cu50	-50°C~+150°C	Resistance(R) 30~350Ω	22 252	
	Pt100	-200°C~+850°C			

4. Main technical performance and parameters:

Item	Type index	
Danie aman	±0.2%F·S±1 word(adopt external cold end compensation)	
Basic error	±0.2%F·S±2°C±1 word (when adopt internal co ld end compensation)	
Sampling period	<0.3s	
	Position control (positive/negative effect and switch difference can be set)	
	PID control(positive/negative effect can be set, PID parameters can be	
Control mode	manually/automatically set)	
	Manual control (modify the output values through keyboards)	
	Have max. 2-way alarm output, each way of alarm output can be freely	
Alama mada	defined as upper-limit absolute value alarm, lower-limit absolute value alarm,	
Alarm mode	upper-limit deviation value alarm, lower-limit deviation value alarm, and can	
	set exemption from alarm feature when the meter is power on.	
Work power supply	85V~264V, 50Hz/60Hz, consumption<10VA	
Work environment	Temperature 0~50°C, relative humidity≤ 85% non-corrosiveness places	

Note: F·S is the range of the meter. The meter with B graduation thermocouple can measure within the range $0\sim+1800\,^{\circ}$ C, but the basic error can't be guaranteed below $600\,^{\circ}$ C.

5. External and installation size:

(Unit: mm)

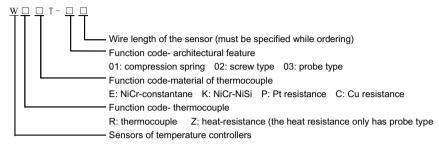
Model	Panel size	Shell size	Cutting size
XMTA series	96×96	91×91×80	92×92
XMTG series	48×48	44×44×100	45×45
XMTD series	72×72	66×66×100	68×68
XMTH series	160×80	150×75×84	152×76.5



1. Product overview

As the sensors for measuring the temperature, the thermocouple and heat-resistance will normally be used with the secondary display instrument. It can directly measure the surface temperature for liquid, steam and gas medium as well as solid within 200° C \sim 1800 $^{\circ}$ C through various kinds of production process, which are widely applied into the automatic temperature control areas such as industries, agriculture, chemical industry, etc.

2. Model description of the thermocouple:



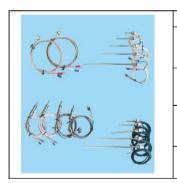
Note: 1. Wire length of the sensors L unit is mm;

2. The shortest length of the wire length of the sensors is 1000mm, the length increases progressively by 500mm.

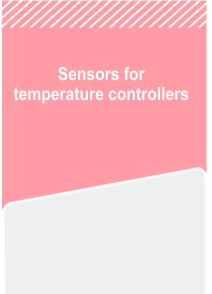
3. Input specification and measuring range:

- Accurate measurement;
- ◆ Varies installation methods;

4. Model description of the sensors: selection description table of compression spring, screw and probe series:



Name	Model	Graduation
Compression spring type	WRET-01	E(EA-2)
Thermocouple	WRKT-01	K(Eu-2)
Screw type	WRET-02	E(EA-2)
Thermocouple	WRKT-02	K(Eu-2)
Probe type	WRET-03	E(EA-2)
Thermocouple	WRKT-03	K(Eu-2)
Probe type	WZCT-03	Cu50
Hot resistance	WZPT-03	Pt100



Summary:

XMT-5000 series digital indicating controllers have variety of advantages, such as high accuracy, easy installation, good reliability, strong antivibration and anti-interference ability, etc. With various of external sizes and complete control mode, it can be widely applied into temperature measurement and automation control within - 200°C to 1800°C for those industries including plastic, rubber, packing, food machinery, metallurgy, refrigeration, chemical, medical treatment, etc. It can realize measurement and control for the parameters such as pressure, flow, liquid position, humidity, etc. coordinated with the corresponding sensor.



Declaration of Conformity

The submitted sample of the following equipment has been tested for CE marking according to the following European Directives: the EMC Directive 2014/30/EU.

Applicant name &

address

: Zhejiang Chint Instrument & Meter Co.,Ltd.

Bridge Industrial Zone, Yueqing City, Zhejiang Province,

China

Manufacturer name &

address

: Zhejiang Chint Instrument & Meter Co.,Ltd.

Bridge Industrial Zone, Yueqing City, Zhejiang Province,

China

Product : DIN-RAIL METER

Model/Type reference : DDSU666

Trade mark : Chint

Ratings : AC 230V, 50Hz/60Hz

Order No. / Report No. : EED32J000016/EED32J000016

Test Standards EN 61326-1: 2013

This Declaration is for the exclusive use of CTI's Client and is provided pursuant to the agreement between CTI and its Client. The observations and test results referenced from this Declaration are relevant only to the sample tested. This Declaration by itself does not imply that the material, product, or service is or has ever been under a CTI certification program.

Note: This Declaration is part of the full test report(s) and should be read in conjunction with it.





Christy Chen
Lab supervisor
Date: Feb. 16, 2017

Check No.: 2448789944

CENTRE TESTING INTERNATIONAL GROUP CO., LTD.

Hongwell industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, Chine

www.cti-cert.com E-mail:info@cti-cert.com





Declaration of Conformity

The submitted sample of the following equipment has been tested for CE marking according to the Low Voltage Directive 2014/35/EU, It is possible to use CE marking to demonstrate the compliance with this Directive.

Applicant name &

address

: Zhejiang Chint Instrument&Meter Co., Ltd

Bridge Industrial Zone, Yueqing City, Zhejiang Province, China

Manufacturer &

address

: Zhejiang Chint Instrument&Meter Co., Ltd

Bridge Industrial Zone, Yueging City, Zhejiang Province, China

Product DIN-RAIL METER

Model/Type reference **DDSU666**

Trade mark CHINT

230V~ 5(60)A Ratings

EED31J000024/EED31J000024 Order No./ Report No.

Test Standard(s) EN 61010-1:2010

This Declaration is for the exclusive use of CTI's Client and is provided pursuant to the agreement between CTI and its Client. The observations and test results referenced from this Declaration are relevant only to the sample tested. This Declaration by itself does not imply that the material, product, or service is or has ever been under an CTI certification program.

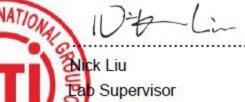
Report Sea

Note: This Declaration is part of the full test report(s) and should be used with it.









Date: Mar. 27, 2017

Check No.: 2448789944

CENTRE TESTING INTERNATIONAL GROUP CO., LTD.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China

www.cti-cert.com E-mail:info@cti-cert.com





Proof of Compliance

Product DIN-RAIL METER

Name and Address of Applicant Zhejiang Chint Instrument&Meter Co.,

Ltd

Bridge Industrial Zone, Yueqing City,

Zhejiang Province, China

Trade Mark CHINT

Model/Type Ref. DDSU666

This is to certify that the electrical article as described above meets the requirements of the standards listed as follow.

Standard Test report No.:

IEC 61010-1:2010 (Third Edition) EED31J001413

By Centre Testing International Group Co.,

Ltd.

Compliance Mark: RCM

Date of Issue: 01 August 2017

TVC Service Pty Ltd

David Chen

TVC Service Pty Ltd

556 Musgrave Road ROBERTSON QLD 4109



Certificate of Suitability

Certificate No.: SAA171290

Certificate Holder: Zhejiang Chint Instrument&Meter Co., Ltd

Bridge Industrial Zone, Yueqing City,

Zhejiang Province

P.R. China

Class Description: Non-Declared

Product Description: DIN-Rail Meter (Built-in Power Meter)

Brand Name: CHINT
Model No.: DDSU666
Markings: 230V~ 5(60)A

Standard: AS/NZS 61010.1:2003

Conditions: All models approved under this Certificate

must comply with the Standard requirements

of the end product when installed.

Certification Mark: SAA171290 or RCM

Date First Registered: 12 June 2017 Date of Expiry: 12 June 2022

For and on Behalf of SAA Approvals Pty Ltd

SAA Approvals Pty Ltd as accredited by JAS-ANZ under ISO/IEC 17065 certifies in accordance with the SAA Approvals Electrical Product Safety Certification Scheme that the product nominated in this certificate complies with standard/s listed.

When using the RCM the requirements of all relevant parts of AS/NZS 4417 applicable to the article must be fulfilled.

For SAA Contact Details and to verify this Certificate go to: www.saaapprovals.com.au







Issued: 12-06-17 171290/1



ZHEJIANG CHINT INSTRUMENT & METER CO.,LTD

HEADQUARTER

Add: No.560, Yueming Road, Binjiang District, Hangzhou, Zhejiang, 310052, P.R. China

Tel: +86-571-56977777 Fax: +86-571-56977888

PRODUCTION BASE

Add: Wenzhou Bridge Industrial Zone, North Baixiang, Yueqing, Zhejiang, 325603, PR. China

Tel: +86-577-62877777 Fax: +86-577-62919588

Website: http://im.chint.com E-mail: chintmeter@chint.com